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NUMBER 64

FUNCTIONS OF SECONDARY EDUCATION

REPORT
of the

Committee on the Orientation of Secondary Education

Department of Secondary-
School Principals
of the

National Education Association

FRANCIS L. BACON

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FRANCIS T. SPAULDING

CURTIS H. THRELKELD

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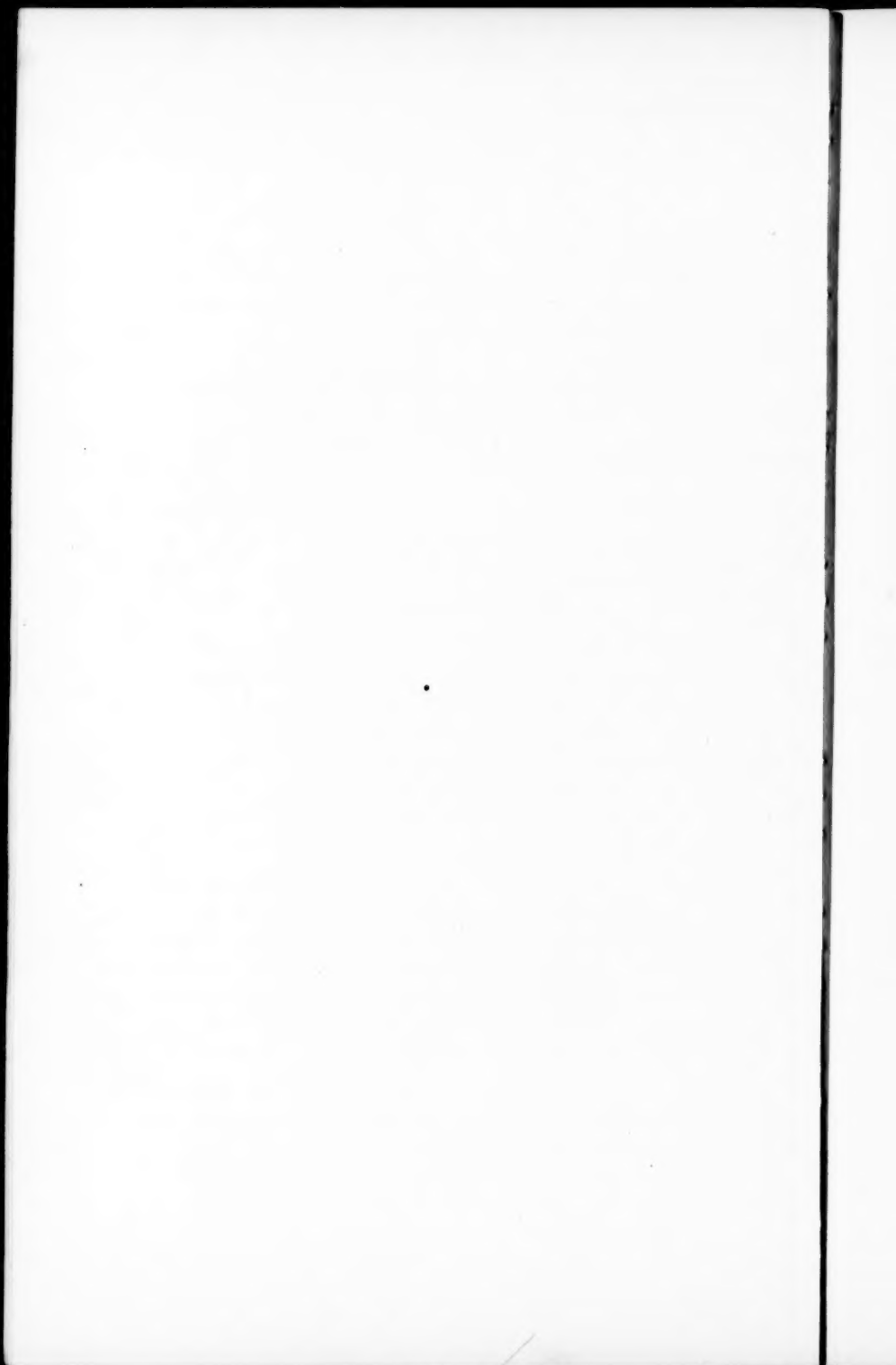
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INTRODUCTION

History of the Committee. At the Washington meeting of the Department in 1932 following an address by Professor Briggs on "A Program for Secondary Education," Professor Jesse B. Davis made a motion that a commission be appointed to study and restate the principles and objectives of secondary education. Subsequently President W. W. Haggard named a small committee, consisting of Milo H. Stuart, Curtis H. Threlkeld, and Thomas H. Briggs, to plan what could be done. This committee, meeting with President Haggard and Secretary Church, agreed that a Commission should be appointed and that funds should be secured or appropriated that would make possible effective work. In response to an official request the Carnegie Foundation for the Advancement of Teaching made a grant of \$9,000 and at Minneapolis the Department appropriated \$6,000 to finance the work for three years. President Haggard appointed the following committee:

THOMAS H. BRIGGS, *Chairman*

Professor of Education

Teachers College, Columbia University

New York, N. Y.

BURTON P. FOWLER

Headmaster, Tower Hill School

Wilmington, Delaware

ARTHUR GOULD

Deputy Superintendent of Schools

Los Angeles, California

SIDNEY B. HALL

State Superintendent of Public Instruction

Richmond, Virginia

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Director of the University School

The Ohio State University

Columbus, Ohio

FRANCIS T. SPAULDING

Professor of Education

Harvard University

Cambridge, Massachusetts

MILO H. STUART

Assistant Superintendent of Schools

Indianapolis, Indiana

CURTIS H. THRELKELD

Principal of Columbia High School

South Orange, N. J.

This original committee was subsequently enlarged by the addition of Truman G. Reed, principal of the High School East, Wichita, Kansas; Arthur K. Loomis, then Principal of the University High School, the University of Chicago; and Will French, then Director of the Curriculum, Tulsa, Oklahoma. John A. Lester, Executive Secretary, Friends Council on Education, Doylestown, Pennsylvania, and Heber H. Ryan, Principal of Wisconsin High School, University of Wisconsin, Madison, replaced Messrs. Fowler and Loomis, who resigned, and Francis L. Bacon, Principal of the Evanston, Illinois, Township High School, took the place of Mr. Stuart, whose untimely demise we still mourn.

This Committee is widely representative geographically and professionally. Three are now principals of public high schools and several others have held that position; three are principals of high schools maintained by universities; two are heads of private schools; two are professors of secondary education; two are assistant superintendents in charge now or previously of high schools; one is a superintendent of schools, formerly a high-school principal and later active in curriculum revision; one is a state superintendent of public instruction; one is a specialist in higher education in the Federal Office of Education; and three are active in the Progressive Education Association movement.

At this point I should like to pay tribute to the competence of the members of the Committee, to their knowledge of conditions, their thoughtfulness about fundamental matters, their open-mindedness, their coöperativeness, their industry, and their wisdom. The only objection that I can cite is that their very competence has caused too many demands on them for other duties.

Technique of the Committee. Being aware of the handicaps under which committees labor when they are forced to meet hurriedly at conventions which make many other demands, this Committee has used the funds at its disposal chiefly to make possible six meetings, each of approximately a week in length, at some remote but comfortable place where there was nothing else to do but work. The faithfulness of the members at these meetings has been noteworthy.

Although the Committee has been in remarkable agreement on most matters, especially those of major importance, individual members should not be held responsible for every detail of expression. Inevitably there have had to be some compromises that do not satisfy everyone. But none of them has been considered to be of sufficient importance to warrant a minority report.

Each member of the Committee has individually consulted with numerous people who were thought to be unusually competent regarding some phases of the matters under discussion, and the report gives evidence of the wisdom of their contributions. In addition, at the last meeting of the Committee Professor Orville G. Brim, of Ohio State University, and Professor George C. Kyte, of the University of California, were present by invitation to represent elementary education. Their help in the discussion not only of the functions but also of the issues is gratefully acknowledged.

The report has been edited and seen through the press by Mr. Francis A. Young, to whom the Committee makes grateful acknowledgement.

The Work of the Committee. In the first annual report of this Committee the need for such work as it proposed to undertake was discussed. It was there pointed out that since 1918, when the report of the latest national committee, that of the

Commission on the Reorganization of Secondary Education was published, there had been many changes, not merely in the work of secondary schools but in civilization as well. It was recognized that the problems of secondary education are not isolated and independent, but are inextricably bound up with those of elementary, vocational, "special," adult, and higher cultural education. For these and other reasons it was felt that the time was ripe for a consideration of some of the fundamental problems that underlie not only secondary education but also all of the provisions that society should make for the care of its youth.

Inasmuch as our civilization has never attempted frankly to face and to solve these fundamental problems (as a matter of fact, society has scarcely been aware of them) the challenge was stupendous. At first the Committee hoped to do even more than has been possible in the limitations of time and resources at its disposal. It frankly recognizes the need for a comprehensive program for the care and education of youth, including far more definite and justifiable details of a curriculum than we now have, but the construction of this program will require a great deal of money, a large staff of full time expert workers, and some years of devoted labor. It cannot be soundly built until the foundations are laid. And the attempt to lay a part of these foundations was the responsibility that this Committee assumed. It confidently believes that no substantial comprehensive program can be developed until the issues as presented are settled and the functions of the several educational units are determined.

The challenge to lay wide and sound bases for the program for the care and education of youth is before us and must be accepted by professional leaders. The laying of foundations is not spectacular; it does not lead to immediate direction for definite changes; and it is exceedingly difficult and tedious. For these reasons there are those who would dodge the responsibility, who would continue the attempt to build parts of a structure without first insuring that the foundations are substantially laid. Such persons should continue their efforts, to meet as best they can immediate challenges, for their contributions, if sound can later be used in erecting the eventual structure; but the Committee, after three years of thought on the problems that it assumed, is of the unanimous opinion

that such work as it has attempted must represent an essential foundation for the eventual program.

The surest beginning of efforts that will lead to the new comprehensive program for the care and education of youth is fundamental thinking by the profession. Educators have been involved during the past two decades in an orgy of fact-collecting, much of which has been remotely, if at all, related to problems that are important to a program that is actual or even desirable. Great credit should be given to the collection of facts that have pragmatic values; nothing of importance can be done without such facts. But reflection on published studies will show not only that they have had far less influence on practice than the labor in assembling them would reasonably lead one to expect, but also that they have been uncoördinated in plan and without obvious intent to contribute to the solution of the more important problems. Instead of "wild-catting," investigators need to be directed to the coöperative development of fields that are known to be important and promising. Consideration of the discussion of the issues and of the functions will furnish an abundance of problems that will challenge research workers to profitable endeavor for some years to come.

Similarly, during the past decade or two teachers and administrators have been encouraged to experiment. Experimentation is essential to safe progress. But for three reasons experimentation in education has been disappointing. In the first place, much of it has not been sound in planning or in procedure. Many schools have "experienced,"—that is, have tried something novel—without using a technique that would insure the revelation of results than can safely be accepted either by the directors of the novelty or by others. In the second place, many experiments, even those using sound techniques, have not been concerned with problems of fundamental importance. There is great need for real experimentation coördinated to contribute to the solution of the problems that affect the very bases of organization, administration, curriculum, and method. And, finally, there is no widespread conscience among educators to use the findings of carefully evaluated experiments. In no other professional field are there so few attempts to test the techniques of experimentation, to repeat the project under controlled conditions, and to apply the results to the practical

problems of the schools. The reports of the Committee on the Orientation of Secondary Education should serve in the next few years to challenge and to direct much experimentation of the soundest kind, especially that which deals with the larger areas of educational practice.

Fear has been expressed that the publication by such a committee as this of proposed functions of secondary education may result in discouragement of experimentation. Such a result would be bad and it is not anticipated. Those who have original ideas and a flair for pioneering and experimenting are not likely to be prevented from trying out their ideas. Certainly they should be encouraged to do so. But the number of these adventurers is exceedingly small when compared with the vast majority who wish to have presented to them fundamental definitions justified by reasonable arguments. The Committee has attempted to guide the entire profession in thinking about the issues and the functions of secondary education without at the same time restricting the independent and the inventive. It proposes general principles, to be approved with or without amendment, which permits an abundant variety in detailed application.

This report is intended to turn the thinking of all professionally-minded teachers and administrators toward some basic problems of the education of youth. Not only that, it is hoped that the profession will bring them to the attention of the public so that they too will be aware of matters fundamental to educational policy. The report presents an ideal to be worked toward, not a series of proposals that should receive legislation before both the profession and the laity understand and are ready to support them. It should go without saying that as conditions change there may be needed changes, minor or radical, in the program that the report suggests and advocates.

After discussing the general problems of the principles and objectives of secondary education, the Committee decided to concentrate on two matters of fundamental importance: the issues,—that is, the conflicts of theory with theory and of theory with practice,—and the functions of secondary education. At first it was hoped to make some more direct contribution to the curriculum, but the agenda undertaken proved

more than sufficient to consume all available time and energies. The report on the Issues of Secondary Education was presented at the St. Louis meeting and was published by the Department as Bulletin 59, January, 1936.

The special functions of secondary education were proposed by the chairman as a result of the study of all pertinent professional literature, which is indeed scanty, of conferences with many who are interested in the principles of education, and of the application of philosophy that seems sound and substantiated.* After prolonged discussion the list of functions as a whole was approved by the Committee, and each function was assigned to a member for elaboration. Reports or more or less fullness were prepared by individual members on all of the functions. The tentative reports were discussed, given constructive criticism, and in general approved by the Committee. As the revised forms could not be completed before the date of final adjournment, it was decided that each chapter should be signed by the member who wrote it and that he should assume responsibility for the detailed statements made. The Committee voted, however, its approval of the ten functions presented as those that it considered sound and important for secondary schools to seek to perform.

The ten functions as stated are not all the peculiar responsibility of secondary schools. Several may in varying degrees begin in the elementary school and continue at least through the junior college. Each one, however, the Committee believes important, usually one of the most important, in the education that normally begins about the age of twelve and concludes some six or eight years later. Reiterating its belief that education should be a "gradual, continuous, unitary process," as discussed in Issue X, the Committee recognizes that for practical purposes of administration an educational system will be divided into units of organization, and it maintains that such units can be logically made only on the basis of clearly recognized functions that are peculiar or at least of peculiar emphasis for each division. One value, then, of agree-

*The functions were first stated and briefly discussed in Professor Briggs' *Secondary Education*, pages 252-58. The Macmillan Company, 1933.

ment on the special functions of periods of education is to enable us to decide logically what the administrative units should be.

A second value of the stated functions is to stimulate the profession to clarify its philosophy of secondary education. That every teacher, to say nothing of principals and other leaders, should have a philosophy—that is, an organization of thinking about the fundamental meanings and ideals of secondary education—is a truism. It is impossible for such a philosophy to be developed with any approach to a satisfactory degree of completeness until such matters as the proposed functions are considered. The Committee has given reasons why the definitions and ideals that it advocates should be accepted, but it has all the time consistently recognized that other points of view and other general philosophies of society may lead one to different conclusions. The most important professional desideratum is not agreement, especially thoughtless agreement, with the Committee, but a stimulus to each worker to consider these essential matters and to come to such conclusions as will result in a better rounded philosophy, which in turn should direct and stimulate the development of definite and justified programs of actions.

A third value of the stated functions is when they are understood and approved, with such modification as may seem wise, to furnish criteria by which the program of any school may be evaluated. We are altogether too prone to judge details of practice without consideration of the entire program and of the principles underlying it. "How," writes H. G. Wells in *The Anatomy of Frustration*, "can we know whether a part of a living body is functioning properly or needs treatment and correction until we have something like an idea of the general physiological process?" The worth of any detail of practice is found only in its contribution to one or more approved functions of institution.

Another value of agreement on the special functions of secondary education is that they will give direction to the formulation of new programs or organization, of administration, and of curriculum construction. It should be obvious upon considering the functions proposed that a new program for any phase of secondary education cannot be formulated

and soundly based without using some such functions as are stated as directive of the roads to desired goals. Untold economies will result if the functions are soundly established and clearly stated before the detailed programs are attempted. If the functions as stated are not approved, they should be modified or replaced by those that seem better.

The final value of agreement on the functions of special emphasis in any administrative unit is that it makes possible the preparation of a program of articulation. Most of the in-articulations that have been misunderstandings, conflicts, duplications, and uneconomical progress have been caused by the failure to make special functions clearly known. Secondary schools have suffered from demands that they adjust themselves to the work of the elementary school below and to that of the college above, and they have often been arrogant in demanding that all adjustments should be made to their conventional practices. It is impossible satisfactorily to articulate units that are indefinite and variable. Approval of the proposed functions, with or without modifications, will show what the secondary schools should do. Similar statements should be made of the functions for special emphasis in the lower and in the higher units. Then, and not until then, can an articulated program for the entire educational process as presented in administrative units be prepared.

The functions should be considered in connection with the issues presented in the preceding report, and it should constantly be kept in mind that the discussion of both issues and functions is merely one contribution to the new program for secondary education, which should be built on foundations sound in philosophy and at the same time comprehensive of the entire problem of the care and education of youth.

Uses to be Made of the Report. Both administrators and teachers, knowing what the functions of secondary education are, should after full and fair consideration approve them with or without modification. Then they should challenge themselves to find what the implications of the accepted positions are, what expansions or other changes are indicated as necessary in the school or schools for which they are responsible. Naturally there will be obstacles to a new program, and consideration should be given to how they can be overcome.

Professional leadership in any community will be manifested not by finding or by raising obstacles, but by ingenuity in inventing means for overcoming them. Even though it may not be possible to achieve the full ideal in any school, any approximation will be a contribution to progress. A consideration of these issues may well be made an important part of the program of teachers' meetings, formal and informal, in all parts of the country. Leadership can find no better challenge than concerning teachers with these matters and working out with them a new program based on wise decisions.

Preparation for consideration of these functions by the teachers of individual schools can be made in groups of secondary-school principals and of others especially interested in matters fundamental to education. There are already numerous groups of such leaders, some in large cities and many others with a membership that come together periodically in some convenient center for considering problems of common interest. Many more such informal groups could profitably be organized for discussing these and other similar problems. It is but natural to expect that such groups will be able by the exchange of opinion to arrive at wiser conclusions and plans than an individual unaided could do. Thus every member of a group could later go before the teachers of his own school with more abundant and sound ideas. We can scarcely expect the public to be interested in a new educational program until the profession itself has first clarified its ideas and has developed a devotion to ideals that it thinks should be worked toward.

Although the report will seem at first reading to be remote from immediate practice, it furnishes the foundation on which any comprehensive program must be built. New conditions have, as everyone knows, brought into secondary schools for lengthened periods a large number of youths who formerly either did not enter at all or who remained for a relatively short time. What the policy of secondary education should be regarding such youth can wisely be determined only if a positive and basically sound position has been taken on fundamental matters. It is here suggested that the larger the social or political unit that can be involved in determining the policy, the better. Such a policy must be concerned with the admission of all youth, the period for which each one is to be retained,

the basic purpose for which they are accepted and educated, the kinds of curriculum that should be offered, the scope that the new education should embrace, and the articulation of all the units of the school system. These are all intensely practical matters, and no one of them can be soundly improved until first the issues and the functions have been decided.

It has long been convincingly argued that our traditional and more or less usual program of secondary education for such students as were enrolled before the beginning of this decade was by no means satisfactory. But in an era of abundance the public was not sufficiently concerned to force a profession too largely satisfied with physical growth and occupied with routines to attempt the formulation of a new and adequate program. The public is no longer unconcerned, though it is still too ignorant of the facts to be active in forcing intelligent reforms. It has, however, reduced appropriations and forced many changes, the majority of which are probably unwise and detrimental to the education that should be contributing positively to the preservation and to the improvement of society. It is high time that the profession manifest the leadership which might have thwarted the pressure for unwise changes, and which would indicate the lines along which the public must appropriate funds to make further progress possible. The new program for the academic type of pupil, however highly selected, must be based on the functions, whether it is considered alone or, as must be the case, along with the program for all youth of whatever natural or acquired gifts and inclinations. This fact again makes the report the foundation of practicality.

All of the preceding leads to the inevitable conclusions that it will be necessary after the profession has decided what the functions of secondary education should be to popularize them with the public. That is the basis of the democratic theory. It is too much, of course, to expect that every citizen can be made to concern himself with such general and apparently remote principles; but it is only reasonable to expect professional leadership to bring them to the attention of those citizens who are both intelligent and willing to assume responsibility for determining the policies and the program of education. The larger that fraction is, the more sound the foundation for the new program will be, the more intelligent

hospitality the public will manifest toward proposals for bettering the care and education of youth, and the more likelihood there will be of securing appropriations adequate enough to make it possible. A profession first itself convinced of the importance of these functions will be ingenious to inform the public about them and to convince a potent number to think fundamentally about elementary principles that will determine what the program can and must be. The worthiness of educators for leadership will in part be manifested by the extent to which they popularize such matters as are treated in this report and thus secure the only sure foundation for sound construction.

Finally, it should be repeated that the conclusions of this report have no official sanction. It is not desired that they should have. The purpose, from a democratic point of view far wiser, is to arouse the profession to consider the foundations of education. Even when the public has not been sufficiently informed and aroused on these matters, it is believed that the conclusions and recommendations will furnish the material with which attacks on progressive proposals can be met and defeated. It is far better, however, to prepare the public to support a new program than constantly to have to leave the advancing column and fight off rear attacks. If the majority of the public can be led to enroll under the banner of progress by understandingly approving the principles herein presented, the attacks by ignorant or selfish minorities will decrease both in number and in potency.

Some leaders who are inclined to accept all of the foregoing will be discouraged by their belief that the present staffs of secondary schools contain too few teachers who themselves are concerned with the fundamental principles of education. It is true that there are many teachers who are immature, who are insufficiently informed of or concerned with such matters, and who feel that they are overloaded with the requirements of their daily traditional duties. But how are they to be made professionally minded without the leadership of their administrative officers? How are they to share in the responsibility for preserving and promoting education that it, in turn, can preserve and promote the interests of a democratic society unless they first are made concerned with, intelligent about, and profoundly convinced of the importance of having sound basic

principles for the inevitable new program for the care and education of youth? If an administrator or a teacher cannot be brought to this position, he should no longer be entrusted with the responsibility of a position in the educational system.

What Remains to be Done. The two reports of the Committee on the Orientation of Secondary Education are but a beginning of what must be done. There is need for consideration, by one or more other committees with more time and larger resources, of the implementation of the recommendations. What practically needs to be done? What are the obstacles? And how can they be overcome?

The two reports of the Committee are addressed primarily to the leaders of thought about secondary education, whether they are within or without the profession, whether they are administrators, supervisors, or classroom teachers, or, on the other hand, business men or other citizens. Those who are truly leaders will courageously accept the challenge to clarify their own thinking and to fortify their own convictions. They, as already suggested, will popularize these fundamentals with others both within and without the profession, so that the number of potential leaders may be increased. Each recommendation should be studied by college and university classes in education, by teachers in their meetings, and by intelligent groups and individuals among the laity. They need to convince themselves which road is the sound and the necessary one for democratic society to follow. Then they will ask what procedure is indicated as ideally desirable and what is possible under the handicaps that are present in the community. The important thing is not to find obstacles but to find how to overcome them. Something in the way of improvement can be done immediately in any community, and clarification of the need, if it is kept constantly in the public consciousness, will make a gradual approach to the ideal possible. From such study of these reports there will emerge consciousness of the necessity of other committees. Certainly in preparation for a unified program for education, committees should consider similar problems on the level of elementary and of college education. The more study that is given to these reports, the more need will be felt for expert groups with adequate resources to formulate plans for building on these foundations. Isolated individuals and small groups can do something, can do much

indeed; but it is only common sense to realize that there are limits beyond which they cannot go under the handicap of regularly performing their daily duties. The more they attempt, the more likelihood that the profession will realize the need of committees of experts who can give their entire time to proposing a detailed program for the new education.

THOMAS H. BRIGGS, *Chairman.*

FUNCTION I

To continue by a definite program, though in a diminishing degree, the integration of students. This should be on an increasingly intellectual level until the desired common knowledge, appreciations, ideals, attitudes, and practices are firmly fixed.

INTRODUCTORY SUMMARY

The aims of social integration can be stated simply. It is an old axiom that there can be no social progress worthy of the name unless individuals are able and willing to work together—unless they have common backgrounds of experience and culture, common purposes, and the coöperative spirit.

Schools have the function of integrating youths with each other and with society for the excellent reason that no other agency can do the work completely or well. To be sure, just living together may in itself do a great deal to integrate people in common social practices and in the prevailing standards of the time. But a mere emphasis upon the conventionalities ought not to satisfy a dynamic society committed to change. We wish not only to maintain the present standards of life; we wish also to join together in raising them by whatever processes a mature democracy affords. This cannot be done, however, unless people first agree upon what higher standards are desirable and how they should go about getting them. Nor can it be done unless they develop an intelligent popular will that will insist on the appropriate social action. Obviously, the incidental integration arising from our daily intercourse is entirely inadequate for this. A great deal of common education is necessary. Indeed we must depend increasingly upon schools to promote a social integration much more complete and productive of change than that provided by life itself.

America is beginning to use the secondary school for this purpose. The elementary school must, of course, still carry the peak load of integrating young people, for it has an almost universal spread in its enrollment and deals with children at their most impressionable age. But life is now so complex and

the necessity for intelligent collective action so great if democracy is to survive that the elementary schools cannot handle the more intellectual aspects of a fully developed program of social integration. The secondary school must assume responsibility for continuing on a higher level what the elementary school has begun.

In general terms the aim of social integration on the secondary school level—as on all levels—is to enable and encourage individuals to coöperate in using for the welfare of all the knowledges and the skills which they acquire individually. This aim requires that pupils possess certain characteristics of mind and view in common. They should have the scientific, pragmatic habit of mind; mastery over a flexible, effective, as well as standard speech; an understanding and appreciation of the arts; an intelligent attitude toward good health; a common background of social and scholastic experience; maturity in all social relationships; and an accurate mental picture of the world based upon scientific knowledge and an informed social purpose. A school program directed toward integrating pupils along these lines would do much to produce the type of individual whose presence in society in large numbers is the best guarantee of its progress.

Briefly, the aim of a program of social integration is to develop socially-minded, socially-active individuals. Its governing principle is that the subject matter it uses should be deeply rooted in the truth. This is particularly important in presenting the basic ideals of democracy, about which the greatest misapprehension still exists. Superficially the American people may know what democracy means, but they do not understand it thoroughly enough to apply it to those areas in our national life—areas of politics, religion, social relations, economics, and industry—where men are still discriminated against, exploited, or oppressed. From these bonds of ignorance and prejudice, only the truth can make us free.

If the secondary school is really serious about integrating its pupils in the pursuit of higher standards of life, the first thing it should do is to examine its own program to see how it is now serving this function. It can then begin to eliminate the negative elements which retard integration and amplify the positive elements which promote it. New methods of promoting integration may also be added to the school program as the

work goes on of defining and popularizing the major aims of society and as investigations are made of the common patterns of thought, emotion, and behavior which by being widely diffused among the people will enable them to attain coöperatively the social aims they may agree to seek. These investigations should provide the school with specific objectives to work for and an opportunity to reorganize itself to eliminate wasted effort and to develop more effectively the attitudes and powers the pupils should possess in order to take his place in a society moving toward better things.

In fact, living and working intelligently together so that all people may enjoy higher standards of life is precisely what social integration means. Secondary education must represent and encourage coöperative action of that kind.

I. Integration in a Democracy

Nature of Integration. It was pointed out in the discussion of Issue IV that four uses of the word "integration" are common in educational literature:

a. Social integration, the unifying of the social group in the interest of social coöperation.

b. The intellectual integration of the individual, the coördination of all his developed abilities as a maximally efficient unit.

c. The emotional integration of the individual, a complement to his intellectual integration, the organization of his motives.

d. The integration of subject matter, organizing it in terms of the learner's interests and purposes.

The first of these uses is the primary concern of this present discussion. It may well be noted, however, that as a social order grows toward democracy in that it consistently becomes for all a better place in which to live and in which to make a living¹ the social integration with which we are here chiefly concerned contributes to the individual integration indicated

¹For development of the idea that this is the goal of democracy see Committee on the Orientation of Secondary Education: *Issues of Secondary Education*, Issue VII and others. Department of Secondary-School Principals of the National Education Association, Bulletin No. 59, January, 1936.

by the second and third uses as listed above. The fourth use is of concern to us here only as it may or may not be an effective agent for achieving social integration. In the main, we are contemplating the secondary school as one of the many agencies useful to society in maintaining and in coöperatively improving those desirable culture patterns which distinguish our society from other societies, and which enable us to understand one another and to work together toward common ends.

Historically and comparatively, democracy has not used and is not using the schools as agencies for social integration as have and do other forms of social and political organization. Merriam and Pierce in their studies of civic education² show how in authoritarian orders the schools are used as agencies of integration to the point of producing blind indoctrination while in England and the United States, the strongholds of democracy, we have largely followed a "pot-luck" policy of educating for integration. It is questionable whether a large loosely-knit democracy like the United States can afford to be so careless about integrating education if it cares to exist as a social and political entity. This statement does not imply that we shall here propose that we, as a nation, follow the example of Hitler and Mussolini and resort to a forced indoctrination which has no more right to pass as education in the modern world than the incantations of a voodoo doctor have to pass as the practice of modern medicine. A democracy need not, and should not, especially on the levels of integration with which secondary education is concerned, seek integration through such blind and unreasoned indoctrination. The process of integration can and should be carried on in ways which do not violate our underlying philosophy of democracy and education. It is the province of this chapter to show why and how secondary education should contribute toward this end.

The Importance of Integration to a Democracy. Notwithstanding democracy's traditional avoidance of an emphasis upon integration, born, doubtless, of its fear of imposing upon individual liberties, it has a greater need for a well developed program of integrating education for its youth than does an authoritarian social and political order. In an autocratic state

²C. E. Merriam: *The Making of Citizens*: Chicago: University of Chicago Press, 1931.

E. L. Pierce: *Citizens' Organizations and the Civic Training of Youth*: New York: Charles Scribner's Sons, 1933.

power is centered in a person, a family, or at most in the hands of a few. If youth can be taught that that is where power belongs, that "the king can do no wrong," a host of needs for integration arising out of democracy can be checked off at one stroke. Furthermore, authoritarian states usually tend to approve a *status quo*. If not the status actually in existence, it approved a very fixed and clearly conceived one residing in the mind of the ruling power. The youth of that nation, if well grounded in its autocratic political philosophy, are thus disposed to accept the *status quo* or only such changes as are approved "from on high." Here again, the kind and amount of integrating education needed by the general body of young citizens tends to be reduced to the minimum.

A democratic order adheres to two contrasting points of view each of which demands that democracies need to be more concerned with integrating education than do autocratic states. In the first place authority instead of being narrowly held is widely diffused among the populace. Political and social action is here a response to "the will of the people." If it is to be anything more than a fluttering sail in a listless breeze; if it is to be a series of purposeful movements toward a social goal, then the popular will must be an intelligently persistent one born of widespread comprehension and approval of the goals toward which the proposed action leads. A democratic state requires a higher degree of integrating education and one more widely diffused throughout the populace than does an autocratic state in which the ruling power is less widely diffused. The charge of ineffectiveness often leveled against democracy arises from the conditions obtaining when the power to rule is not only *diffused* but also *dispersed*, as it surely must always be when weak programs of integrating education prevail therein.

The second contrasting point of view held by democracies as compared with autocracies has to do with their attitude toward social change. Democracies tend to be dynamic whereas as already shown, autocracies are more likely to be static. Democracies are conceived "to promote the *general welfare*." Power is transferred to the *general* public on the theory that it can then be used to that end. Since the general public can and does conceive of levels of welfare which it does not yet possess, it seeks to use its power to bring about the changes needed to make these desirable levels more nearly the possession of all.

Democracy, therefore, if effective at all, seeks change. The avidity of the desire for change tends to vary as does the difference between the level of living possessed by the average citizen and the better level of living seen as desirable. Wise decision on the part of the public as to what are desirable directions of change and general agreement upon acceptable means of procedure thus call not only for different levels of integrating education, but for a more widely spread integrating education than is needed in an autocracy. To the degree that these are not present democracy will be proportionately ineffective. Democracies, therefore, instead of being indifferent to integrating education as the United States and England have largely been, have great need for well conceived and effective programs of integrating education for all youth.

Integration as a Function of the School. The life of youth in any society has the effect of integrating the young into acceptance of the ideals and common practices of that society. If it commonly resulted in a high level of integration for each youth, schools would not be needed to further integration. In common practice, however, the integration resulting from life in the society is insufficient to meet social demands. Each youth, as a part of his own living as a youth, does not commonly have opportunity to get the full advantage of the full integrating effect of social living. He gets part of it, others get other parts. The "spread" is not good. Life itself is especially insufficient as an integrating agent in a democracy because of democracy's desire for change. Life tends more to integrate in the common practices of living than in its ideals. Practices are more objective, more a part of current living than ideals, and therefore, become the chief basis of whatever integration life provides. Democracy, however, as we have seen, desires especially integration in its ideals as a means of producing orderly change or "progress" toward those general levels of living which it thinks desirable for all more fully to attain. Consequently, while all societies have found it expedient to institute schools as a means of supplementing life's integrating effect upon youth—to hasten it and to increase it—democracy has a hitherto too little realized need for the school as an integrating agent. It needs to have the effects of integration universally spread over youth as life itself does not do and it needs an emphasis upon ideals which cannot come from current social practice. We, therefore, adhere to the idea that the function

of the school is to help society become a "*better* place in which to live and a *better* place in which to make a living." Democracy's schools cannot be satisfied to make "it (or to keep it) a good place to live." It must be "*better*" to meet democracy's demand. Integration in society's ideals, therefore, becomes too important to leave to chance.

II. Integration in Secondary Schools

The elementary school, to be sure, performs an important integrating function and is generally recognized as the most important integrating influence in society. It is particularly effective because practically all children attend and its teaching is thus universally spread over all members of each generation. Furthermore, it draws to itself the youngest children. They are impressionable, easily led, in effect most teachable. It carries forward that greatest instrument of social integration of all, a common language, to a point at which pupils are able to read independently and to communicate essential information in writing as well as in speech. It teaches, in coöperation with the home, the common skills, habits, and patterns of behavior that we expect everyone to have, such as the ability to use numbers, to tell time, to distinguish the directions, to count change, to say, "I beg your pardon," and the like. It gives pupils a common respect for the importance of proper diet, exercise, rest, cleanliness, and medical care. It orients the pupil as to the leading facts of geography and American history, and develops quite a fiery attachment to the American form of democratic government.

The integration which the elementary school commonly does is important and at one time might have been considered complete. In fact, historically speaking, it has been so complete as to establish the idea that the function of the elementary school was that of integrating youth and that further integration in schools was unnecessary. As long as the kind and amount of integration was determined by an order which was authoritarian in concept this belief was largely sound. With the rise of democracy, with its spread to other areas of life than the political, with the consequent need for emphasis upon social ideals as criteria against which to check current life-practices and with the increasing complexity of life in general, comes a new recognition of the impossibility of completing the

integrating function of the school by the close of the elementary-school period, especially as now widely shortened to a six-year period. Without infringing upon the work of the elementary period, without duplicating it in any degree, integration may be claimed as a function of the secondary school. A democratic society's need for more integration and different kinds of it, the longer continuance of youth in school, the increased power which maturity brings for making observations of current social practices and for evaluating them in terms of approved social ideals all argue for continuing integration into the secondary-school period.

The statement of the function suggests that this be done "in a diminishing degree." There are several reasons for tapering it off during the secondary-school period. As has already been pointed out, an early "peak" to the process during the elementary-school period is socially and psychologically justified. Integration can, therefore, be expected to play a less important part in education as the pupil gets older. Second, the earlier and the higher the "peak" in the elementary period the greater amount of it will be accomplished therein with a consequently smaller need for its continuing as a major emphasis in subsequent education. Third, as students become more mature they assume a larger and larger responsibility for carrying on the process. As adolescents they want to conform. Fourth, there is a cumulative effect. Once integration is started it tends to continue of itself. When one learns to read for instance, reading is likely to be done and if so it results in further integration. Lastly, differentiation of educational opportunity must begin and as it does integration must become a diminishing factor in the educational program. Differentiation is an essential function of education. (See Issue IV and Function IV.) Before students drop out of school in any considerable numbers much headway with a differentiated program must be made. It is desired by students and is needed by society. Secondary education may be expected to be a period in which differentiating education plays an increasing role with integrating education diminishing at a rate determined by the persistency of youth in school and the complexity of the social situation to which they are expected to become integrated.

Nature of Integration in Secondary Schools. There are a number of phases and aspects of integration to which the sec-

ondary school may appropriately give attention before it considers that the school has fulfilled its obligation. To the secondary-school period falls the obligation of continuing social integration on an increasingly intellectual level until the desired common knowledge, appreciations, ideals, attitudes, and practices are firmly fixed, accepted, and appreciated because seen and understood as important in continuing and in improving the processes of democratic life. The fact that, at this age, pupils, implemented by the elementary school with the tools of learning have increased social and intellectual maturity means that the secondary school can become a most important factor in social integration.

It should develop the increasingly intellectual aspects of our common culture, such as the scientific, pragmatic habit of mind, a social outlook colored by clearly understood democratic ideals, a standard speech capable of expressing ideas and feelings as well as essential information, adult reading interests, respect for the arts and some understanding and appreciation of them, a deeper, more scientific understanding of the conditions of good health, and a "world picture" based on scientific knowledge and informed social purposes. Through supervising the physical and emotional adjustments of adolescence it can increasingly bring about a certain common level of social maturity: a certain common acceptance of what the mature adult does or does not do in his emotional relationships with himself and with other people. It, also, provides a common background of scholastic experience, participating in socialized class activities, engaging in common non-classroom activities, attending school dances and athletic events, and participating in the very active social life of young people. This common background makes everyone who has shared it more or less akin.

It should enable our society to carry out large-scale economic and scientific enterprises which are based on a common understanding and acceptance of the scientific point of view. Spanning the continent with railroads, motor highways and air lines would have been impossible in a pre-scientific society; regardless of the technical attainments of its engineers. The quarantine of human, animal, and plant diseases likewise depends for its effectiveness upon the understanding coöperation of large numbers of people arising from a scientific attitude.

Such great enterprises as the Tennessee Vally development likewise stir the imagination of our people because at least the basis for understanding their social and scientific implications has been developed throughout the nation.

A social outlook colored by clearly understood democratic ideals should be enhanced by further integrating education on the secondary-school level and should enable our people to coöperate in maintaining and in extending their social and governmental services without direction or pressure from an hereditary aristocracy. They have created a school system that is in many respects unparalleled in the history of the world. They have built roads, provided water and electricity, hospitals, police and fire protection on a scale which does them credit. The nation-wide response to the appeal of the NRA, when the country was really aroused to the menace of the depression, also illustrates the value of a widely diffused social consciousness, with every citizen fully aware of the need for social coöperation in preserving his own welfare. The great difficulty of persuading the rural population to collaborate in any scheme for their mutual benefit offers negative evidence of the value of education in promoting this sort of social understanding and confidence.

A standard speech, capable of expressing ideas and feelings as well as essential information, should be a further extension through integrating secondary education of that primary instrument of social coöperation, a common language. It should enable our people to understand one another as human beings, not merely as units in economic enterprise, with common humor, sympathy, beliefs, drives, and emotions. The added power and flexibility of language added by the carefully directed English program of secondary education is a national resource of incalculable worth.

Adult reading interests augmented during the secondary-school period should also serve to integrate our people in socially valuable ways. This sort of integration has not proceeded very far. A recent study of the reading habits of whole communities by Tyler and Waples reports that the average adult reads less than one book a year. The heaviest reading is done by stenographers and clerks and consists largely of sentimental romances affording vicarious satisfaction to their sexual impulses. Among the more literate portion of the popu-

lation, however, which commands considerable influence in our national life, books are perhaps the most common source of ideas and of intellectual stimulation. One who has never read nor wished to read what we recognize as adult literature finds it extremely difficult to converse with a well read person, or to attain any common ground of mutual understanding.

Respect for the arts is also one of the feeblenesses of our educational system, largely because the arts are still so completely neglected in the prevailing curricula. Perhaps it is unfair to count it as one of the contributions of secondary education at the present time. The support of art museums and artists, symphony orchestras, opera companies, concert artists, the theater and sound architecture must still rest largely with a minority. Increasing attention to the arts in elementary and secondary schools, however, should eventually create for art in the community a demand that may lift America out of its relative barrenness in this aspect of culture. The best illustration of what secondary schools can do to lift the culture level in an art is in the field of instrumental music. The emphasis placed upon high-school orchestras and bands for the last decade, especially in the middle-west, has not only produced a large number of capable young performers but has served to create community pride and interest in an organization which can play good music well. Despite its older cultural heritage, Europe cannot furnish such an inspiring sight as Interlachen where gather for study, each summer, hundreds of young musical artists drawn mostly from the public schools of America. Public-school music in spite of adverse commercialized musical interests, is making America musical. What it is doing for music can be done also for literature, drama, and other arts, and in a generation the whole culture level of American arts can be raised to new "highs". Integration, it should be remembered, creates not only common understandings, it creates common desires, and common support of enterprises to satisfy those desires. In a democratic school system, what tends to create the artist and give him social approval and honor for his performance tends also to create understanding and appreciation of his performance by all who hear or see him.

A deeper, more scientific understanding of the conditions of good health than is developed in elementary schools is necessary for popular support of a sound public health program,

and it should be the outgrowth of integration in the secondary school. The elementary school can inculcate personal habits with respect to diet, exercise, rest, cleanliness, posture, fresh air, medical care and the like. Greater maturity and more social experience are essential, however, to a full understanding of the social applications of these health facts to problems of community health and welfare. This understanding requires the type of science program which can appropriately be presented only to the more mature students of the secondary school. This is especially true, of course, of wholesome attitudes and practices in regard to sex.

A "world picture" based on intimate knowledge and infused with social purposes is perhaps the ultimate integrating factor of our society. The secondary school should be expected to make a major contribution to integration at this point. Tolerance, understanding, peace, coöperation, human inter-relationships are ideals upon which elementary education can make a small but important start. It can apply these ideas to the personal life and conduct of children in the group life of the school. The wider applications to national, racial, and industrial groups may be made only when maturity, interests, and experience determine that these larger concepts can be utilized by students. The elementary school furnishes the basis by application to immediate and personal living. It begins the process of extension to broader fields. The secondary school should raise the level of thinking up to what is needed by adults in thinking about these current problems. In this field, perhaps, lies the richest and most promising contribution of secondary education to social integration.

These possible contributions of secondary education to the integration of our people have been discussed at length in order to outline in some detail areas of integrating education in which here is a need for common understandings and ideals beyond what we may reasonably expect from the elementary school. These specific items are not mentioned to define or limit the secondary schools' field of integration but rather to suggest possible areas for development. Secondary education should lift the integration of our people to a higher plane, intellectually, aesthetically, socially, economically, and morally. It should be done by the secondary school as part of its legitimate function in any democracy. Integration of these kinds

and levels is especially needed, as has been shown, in democratic societies where the commitment to social change makes understanding and approval of social ideals, as contrasted to current social practice, highly essential. American secondary schools have an obligation to re-design their programs of integrating education and thus to develop programs based upon a more adequate concept of their importance in our democracy.

III. A Program of Integration for Secondary Schools

Results of Present Programs of Integration. This call for a more adequate program of integrating education for secondary schools is not to be interpreted as implying that the present program has not had its results. The present one carried on successively by elementary and secondary schools, has accomplished much—much more than life itself unsupplemented by the school could have done. It accounts for widely distributed abilities to write, read, and use language, though the amount of improvement in the use of correct conversational English is continually discounted because children encounter out of school such a barrage of incorrect adult usage, and on the whole, such general unconcern for any improvement. The basic skills with which we handle quantitative situations of space, time, value, and weight are also acquired through school experience with them. Skills in this field seem to have been more effectively acquired as the result of the schools' program than in the language field. Most of the difference, however, is probably traceable to the fact that these latter skills are not subject to as much corruption from non-school levels of use as in the former field. On the whole, the present schools' program of integrating education has been successful in the basic skills' field.

In the fields of social customs, practices, and usage the schools' program has also been attended with noteworthy results. Confronted with a rapidly increasing enrollment on the secondary level, drawn quite largely and increasingly from homes where the best practices were either unknown or undervalued, the school has, notwithstanding, accounted for a markedly improved and quite generally distributed standard of usage of social customs and practices. Credit for this general improvement is not always properly assigned to the schools. Robert A. Millikan was recently quoted in these

words: "The filling station men have improved the manners and courtesy of the American public more than all the colleges in the country."³ If by this statement, Millikan meant, as is inferred by those who quote it, that filling stations teach courtesy, then we have here but another example of the error of assigning a cause and effect relationship between two elements in a situation merely because they appear there together. As a matter of fact, there is nothing about a filling station from which one who was not courteous or who did not know how to be courteous could learn how to be. No oil companies who own filling stations, ever wasted much time and money teaching their employees how to be courteous to the public. Instead they adopted the less expensive and more expeditious practice of employing only young men who, because of previous experience in secondary schools and colleges, had already acquired knowledge and skill in pleasantly and courteously meeting people. "Render unto Caesar that which is Caesar's." Credit the American school with having rather successfully educated its students in social customs, manners, and practices. Credit business only with having discovered that courtesy has a cash value.

Needed Extension in Educating for Integration. Least has been done by the secondary school, it seems to the writer, in securing widespread understanding, approval, and acceptance of the basic ideals which are essential to the development and spread of democracy. This state may be a natural by-product of the failure of America, as a whole, yet to understand the implications of its acceptance of democracy as its cardinal principle of group-life and organization.⁴ The evidence of incomplete and partial applications of democracy to life is present on all sides. We have most freely sought to apply the principles of democracy to the political aspects of life. It is accepted in theory, but applied only in part to the religious, social, economic, and industrial aspects. Yet the nature of democracy is such that if it is accepted at all it must be wholly accepted. We must love one and hate the other. We cannot serve two masters. Not having recognized this as a nation yet, we face irreconcilable conflicts in present life like disenfran-

³See the *Reader's Digest* for January, 1935, p. 33. Also the issue of January, 1936, p. 13.

⁴See Issue VII, pp. 280-285.

chisement of negroes in the face of our theory of political equality, like religious intolerance in the face of our commitment in favor of religious freedom, or like millions on an unnecessarily sub-marginal standard of economic and cultural life in a nation dedicated to "life, liberty, and the pursuit of happiness." These unhappy conflicts are, for the most part, accepted by adults as more or less inevitable. Cults, orders, lodges, and "blocs" are created to further, support, develop, and perpetuate such inconsistencies and conflict. Well-meaning adults join, campaign for, and contribute funds to such groups and causes, failing to see that they are thereby violating their oft-repeated pledges of loyalty to democratic principles. In fact, many of these causes are supported as truly "American," thereby attempting to gloss over with a thin layer of consistency a festering mass of inconsistencies.

The tendency for adults to sponsor, approve, or endure as a necessary evil such inconsistencies in the various aspects of our group-life grows out of the ignorance or misunderstanding of the connotations of democracy. They do not see clearly its goals. They misunderstand its purposes. They do not comprehend the effects of extending its applications to all areas of living. The writer holds that much of this confusion of thought, much of this misunderstanding of effects, and many of the resulting current inconsistencies of life can be reduced to the minimum only by a program of integrating education which drives through the surface water of skills, habits, manners, customs, and practices to the deep underlying and never-failing springs of our democratic ideals which together with their associated attitudes and emotions constitute all that makes or promises to make American culture distinctive. Such a program belongs to the secondary level where the maturity of students permits recognition of some of the implications and connotations of the basic ideals of democracy and intelligent consideration of their applications to current processes of life. We are where we are now in our social thinking largely from lack of such a program. A clearer concept of our national goals, and progress toward them await alike an effort on the part of secondary education to develop such a program and teach it to its rapidly increasing host of students. Only by such a program clarifying social ideals and making them widely known and approvingly accepted, can our democracy effectively

move from the present "good" level of living to that "better" level of life and living which it professes to seek for all mankind.

Some Specific Suggestions. Some of the specific suggestions and implications of this discussion of this function of secondary education might be summarized as follows:

1. The investment theory of public-school support—that the state supports schools to preserve and perpetuate itself and to promote its own best interests—is sound and places a resultant obligation upon public-school leaders to include within the secondary-school curriculum an integrating element of such character and force as to aid in preserving and promoting the supporting society.
2. An adequate program of integrating education in any society includes not only acquisitions of common habits and skills but also ideals and attitudes.
3. Democracies are dynamic types of social organization, being organized to create, manage, and guide social change ("progress") toward a "better" state in which the welfare of the common man is more fully realized and achieved. It is, therefore, less interested than other societies in the habits, customs, and mores which make up the *status quo* and more interested in a program of integrating education which emphasizes the democracy's fundamental and underlying ideals, since only by having these clearly in mind can citizens evaluate current practices and proposals accurately enough to guide intelligently society in its progress.
4. Integrating education in all types of societies must begin early to be effective. It has, therefore, been customary to consider the period of elementary education as primarily one of integration. In an autocracy committed to the *status quo* elementary education might do all that the schools could do toward integration. In a democracy, however, integration must not only begin early, but since an emphasis upon ideals and their applications to current problems in social, industrial, political, religious and economic areas is involved, it must continue during the secondary-school period when

the maturity of the student will make such wide applications possible and profitable.

5. Having been imported with but small modifications from times and places when and where democracy was neither present nor desired, most of our secondary-school programs involve too little of integration to satisfy the needs of a democratic society. Moreover, a young democracy in the first flush of freedom tries to throw overboard with the "yoke of oppression" as many of the duties and responsibilities of citizenship as it can, thus leaving the individual with as nearly complete a freedom as possible. This is the age of "individualism." In the course of time (as now in America) a new balance between the rights and duties of citizenship, between freedom and responsibilities, between "security and liberty" has to be established. We now, therefore, in American secondary education would face the necessity of rewriting our program of integrating education in terms of this second phase of our developing democracy, even if we had had a satisfactory program of education for the first period.
6. In the light of the present situation in America, the whole life situation in the schools should be examined to determine how it serves to provide desirable social integration. The weak or negative elements should be eliminated. Positive factors should be amplified so that the total effect of living, working, studying, and playing in the school environment tends to be unified effort to achieve large degrees and amount of social integration for all.
7. Educational leaders should endeavor to define and popularize among secondary-school teachers and patrons the "major aims and values" of our society, toward which social integration should be directed. The recent Report of the Committee on the Social-Economic Goals of America contributes toward this sort of educational leadership. What we are fast coming to need is, as Dr. Briggs has pointed out elsewhere, a new Magna Charta of *American* liberty in which the meanings and applications of our ideals to current situations will be clarified. How nearly to another Runnymede

we must come before such a charter can be written will measure seven hundred years of progress toward making democracy effective.

8. Educational leaders should investigate the common patterns of thought, emotion, and behavior which, by their widespread diffusion among our people, enable us to attain our major aims and values through social coöperation. This step will reduce our more general goals to specific day-to-day behavior upon which these goals depend.
9. Integrating education being concerned with habits, skills, attitudes, emotions and ideals is a matter of outcomes, not of curriculum organization or school administration. The problem cannot be fully met by calling certain courses and subjects "integrating" and requiring them of all students. There is both integrating and differentiating education in every course, all activity and the total experience of school membership. "Constants" and "Variables" may or may not have any connection with it. A clear delineation of function of the secondary school in America, as the work of this committee has sought to enunciate and to popularize, will make our thinking on the curriculum less "fuzzy" than in the past. It will give us a stream-lined curriculum designed for more rapid progress toward an accepted and clearly seen social goal. Some "Victorian" ornamentation will be removed in the interest of effectiveness. "General education" will have the clear-cut social purpose of making youth effective agents in organizing and guiding social and economic changes toward democratic goals. "Vocational education" will discover it too has some responsibilities for integration as well as differentiation. Only as we keep our eye on social goals can we evaluate curriculum outcomes in a public school.

Finally, when we recognize that democracy, as a way of organizing group-life, requires maximum amounts of social integration on high levels both of emotion and of intellect, we understand why many of us hold that the future of America—if not of democracy in the whole world—depends largely upon teachers everywhere in our broad land bringing the education

of youth into a functioning relationship with their current living. This is not a task to be accomplished by a grand flourish in a single day nor even in a generation. Yet it is one upon which every teacher in America may do something definite and specific to-day and every day. For every teacher, from those in the small rural high schools of the remote valleys to those of the large urban high schools at the intersection of the city's boulevards, may show his boys and girls how better to organize their current group-life more effectively to carry on enterprises by which they hope to make that living more satisfactory for all; may show them how man has sought, is seeking, and may seek, to make his neighborhood, his nation, and his age a better place in which to live and in which to make a living; may show them how the properties, forces, and productivity of nature may be utilized by man toward the attainment of yet higher levels of human welfare; and above all, he may bring them to admire, respect, and honor that foundational principle of all democratic life, exemplified by so many noble men and women of the past and present, which asserts that the most noble living envisioned by the mind of man, makes the welfare and happiness of others its guiding star. By just such small but innumerable daily teachings can public-school teachers build vicariously a better world.

WILL FRENCH.

FUNCTION II

To satisfy the important immediate and probable future needs of the students in so far as the maturity of the learner permits, guiding the behavior of youth in the light of increasingly remote, but always clearly perceived and appreciated, social and personal values.

INTRODUCTORY SUMMARY

The American people pour annually from the public purse millions of dollars into the support of free schools. Underlying this action is a vague but persistent popular belief that public education is one of the best ways of ministering to an individual's needs. No one imagines, of course, that education taken by itself can satisfy needs in the sense of creating spiritual values or material goods where none existed before; but people are generally united in thinking that education should bestow upon the individual the desire and the power to produce and enjoy them. The schools of America have not fully justified this faith of their supporters, but the principle upon which the people established them is still sound. There is no other defensible reason for educational effort than its ultimate power to serve the needs of mankind.

If educational institutions have failed in the past to meet the needs of individuals, it is not because educators were ignorant of the purpose of education. Rather, the fault of the educator has been in misjudging what the real needs of pupils were. Even when they have seen certain needs clearly, they have been blind to others. The mediaeval monks, for example, in their preoccupation with spiritual values neglected the material needs of mankind. The humanists exalted the values of language and literature. Neither of them to any significant extent based their instruction upon a balanced view of human needs. Neither dealt in a broad kind of learning that applied to more than a few of the problems of daily life. But the monks and the humanists by no means stood alone in this fault. Many others have erred in exactly the same way.

The modern trend in the schools, however, is very definitely toward bringing education more directly into the service

of human needs. Circumstances quite as much as theory have been responsible for the change. The older educational agencies such as the church and the home are no longer as effective as they once were in guiding the individual's development. New educational agencies have arisen—witness the movies and the press—whose influence is not always for the best. These events have forced the school to assume additional obligations in meeting its pupils' needs.

But there are lagging members of the educational profession who are notably unmoved by things happening plainly before their eyes. It requires a great effort to convince them that the school curriculum must be substantially revised before the essential needs of the modern pupil can be satisfactorily met. Therefore the first step that secondary education should take in this respect is to spread the conviction throughout the profession that the needs of young people should be accurately determined and classified and that on this basis the school curriculum should be revised.

The exact determination and classification of the present and probable future needs of young people is, of course, a task that will occupy generations of workers to come. The problem is as broad as the whole range of human activities, it is as deep as the nature of man, and there is no end to it because it keeps renewing itself as fast as people alter their modes of living. But enough is already known about the needs of the individual to give the secondary school plenty to start on. In fact its immediate problem, far from uncovering new needs of the pupil, is to select from the needs it already knows about the particular ones it should attempt to satisfy.

Certain needs are so pressing that their choice requires no deliberation. The maintenance of health, skill in the use of machines, the development of social efficiency, and the like—these are needs so urgent and fundamental that they lie partly within the province of the elementary school. Secondary schools have a responsibility for continuing this work. Beyond that, they should consider carefully what other needs of the pupil they should meet, particularly those more remote from his present requirements but so important to his future that it is right to anticipate them and prepare for them before an individual leaves school. There are limitations, to be sure—limitations with respect to time and money, the maturity of

the pupils, the capabilities of teachers, and the principle that education is an investment by society to promote its own interests and not to indulge the purely personal wishes of the individual.

Any wholehearted attempt on the part of the secondary school to organize itself for the purpose of meeting directly the needs of its pupils will involve radical changes in the content of its curriculum, in the methods of its instruction, and in the types of its equipment. No sudden and disturbing revolution is possible or desirable, but there should be steady progress toward breaking down the barriers which the traditional department divisions of the curriculum presents to the full and proper use of subject-matter. The quality of instruction should be tested by the outcomes it produces rather than by the amount of material covered, time spent, or facts acquired. Particular courses of study should be offered only to those pupils for whom they function and new courses of greater promise in meeting pupils' needs should be added to the curriculum. In the face of these changes there is grave danger no doubt that the pupil may become even more bewildered than he is now and lose sight of ultimate aims just when it is most important that he perceive them. A form of guidance which recognizes the immaturity of the pupil and his need for help in making wise decisions is therefore an indispensable part of the school's educational service.

But no obstacle should be allowed to stand in the way of enabling the secondary school to discharge its function of meeting the real needs of pupils. The penalty is too great. When education neglects human needs it becomes ineffective and, at the worst, useless to those whom it is expected to serve.

I. The Status of Needs as a Curriculum Basis

The proposal that schools take over the responsibility for satisfying the important needs of the pupils will not be accepted by the entire profession without debate. Many of the traditions of higher learning are in direct contradiction to such a purpose; they are rooted in fervent philosophies which at one time or another dominated the purposes of those who were in a position to prescribe educational policy.

The doctrine of formal discipline has always argued against attention to current needs. Admitting the reality and solubility of problems of the environment, it nevertheless insists that the individual can get ready for those problems without paying specific attention to them in advance. Preparedness is to be accomplished through the general training of the mind by means of print and writing materials. While this doctrine has been rejected by psychologists, it still has its adherents and still enters into many discussions of curriculum making.

On the other hand, it may be true that the only thing that is necessary in order to secure universal acceptance of this Function is to allow everyone to define and characterize the "needs" in his own way. It is evident, therefore, that the function deserves a place, and that the real problem is that of selecting the needs. The problem of this committee is consequently one of directing attention to the "important immediate and probable future needs" which call for the services of the secondary school.

Monasticism. The mediaeval monks saw in the behavior of men what was to them evidence of the withdrawal of divine favor from mankind. They therefore omitted from their concept of education all provisions for purely terrestrial needs. Asceticism, the policy of mortification of the flesh, anchoritism, were expressions of the theory that whatever is bad for the body is good for the soul. The monasteries, for six or seven centuries the dominant educational institutions, gave us an aim of education expressed in terms of the development of moral and religious character.

Humanism. The contribution of the humanists to our educational ideals is anomalous. Rising in a period of reaction against the enforced conformities of the Middle Ages, Humanism might have been expected to include a strong determination toward relief from miserable living conditions and from malignant social organization. It however seems to have hurried past the immediate environment to get at the realm of the soul; and the "humanities" drew their substance from the language and literature of the ancient peoples. At its narrowest point, humanism was Ciceronianism; education was the process of developing a perfect Latin style, of which Cicero was conceded to be the exponent extra-ordinary. Mathematics

was admitted to the charmed circle because of its formality and internal consistency. As in the Middle Ages, human needs were left to other agencies, and the concept of education did not include them. This was the flavor of European education during all of American history up to the Civil War.

Early American Education. The Protestant Reformation and its associated controversies imparted a pervasive religious flavor to the educational ideals of the early American colonists. Loyal and aggressive sectarianism called for specific religious training. The hardships of the new home, voluntarily borne for religion's sake, revived and strengthened the conception of terrestrial life as a period to be endured and waited out rather than exploited and cultivated. The effect of these circumstances upon education was in the direction of the neglect of "needs." Not only in the struggle to colonize the Atlantic coast, but throughout the whole westward movement, "education" long continued to be defined in terms of things remote from terrestrial human needs.

In spite of the restrictive tendency of the pioneer attitude, this country has shown progressive interest in needs as a basis for education. In harmony with the principle that newly settled territory is hospitable to change in thought and custom, the American influence upon the definition of education has been broadening and liberalizing. While the process has been slow and intermittent, a persistent trend is evident.

The Academy. There was in the rise of the American Academy an element of rebellion against the restricted classical curriculum. This rebellion seems to have contained little direct indictment of the content itself of the old curriculum; it was more a protest against the omission of training for life problems of immediate importance. Benjamin Franklin proposed for the Academy a liberal course which represented a radical departure in the direction of attention to obvious human needs.¹ But the educational thought of his day forced a compromise which was far short of his hopes.

¹"As to their studies, it would be well if they could be taught everything that is useful and everything that is ornamental. But art is long and their time is short. It is therefore proposed that they learn those things that are likely to be most useful and most ornamental, regard being had to the several professions for which they are intended."

Committee of Ten of the National Education Association. Although probably initiated by Charles W. Eliot's complaint that college preparation took too much time, the work of certain committees of the National Education Association in the nineties showed that the Association had been curriculum-conscious. The Committee of Ten (1892), for example, took the position that "The secondary schools of the United States, as a whole, do not exist for the purpose of preparing boys and girls for colleges. Their main function is to prepare for the duties of life that small proportion of all the children of the country who show themselves able to profit by an education prolonged to the eighteenth year, and whose parents are able to support them while they remain so long in school." In the light of the current thought of the day, this was a bold shot. In two of the statements of this report, however, there is a step in retreat. "For the purposes of general education, one study is as good as another." "The choice of subjects in secondary schools is a matter of comparative indifference." The net result of this report was a greater educational respectability for obvious human needs.

The Junior High School. The organization of the junior high school provided not only an opportunity but a mandate to set up a curriculum with its roots in human life rather than in tradition, in the present and in the future rather than in the past. It is possible that there was more careful consideration of cause and effect in curriculum making from 1910 to 1920 than in all of previous American history. The responsibility of the junior high school for college preparation was indirect and hence less inhibiting than that of the old high school. One of the avowed purposes of the new organization was the retention of pupils in school; this meant that all must be served, bright and slow, college type and non-college type. The educational world was forced to concede to this new school a degree of curriculum liberty which was quite unprecedented.

Committee on Reorganization of Secondary Education. To the Committee on Reorganization of Secondary Education we are indebted for nearly a decade of analytical study of the general problems of the secondary field. Its bulletin "Cardinal Principles of Secondary Education," besides giving impetus to the junior high school movement, pioneered in the enterprise

of building education around purposes rather than around fields of learning.

The Curriculum Making of the Twenties. Early in the progress of the junior high school movement Professor Briggs enunciated his now famous Golden Rule,² of which one part is: "The first duty of the school is to teach pupils to do better the desirable things that they are likely to do anyway." Professor Bobbitt showed how these needs may be analyzed and revealed the startling complexity and variety of the "unspecialized practical activities."³ Professor Dewey reiterated his thesis that the best preparation for future needs is fitting oneself to handle present needs well. As a consequence, the major curriculum making project of the "twenties" in Baltimore, Denver, St. Louis, etc., included a more or less adequate consideration of the needs of children, on the secondary as well as on the elementary level. This special function of secondary education was thus definitely recognized and given a prominence which it had not previously known.

The Depression. The influence of the economic depression upon the secondary school curriculum is still a matter of conjecture. The general public has exhibited some paradoxical attitudes. Along with the outcry against "fads and frills" there has been a tenacious interest in some phases of the practical and in certain parts of the extra-curriculum. Paring the offerings of the school down to the "bare essentials," some boards of education have left the traditional subjects untouched and have eliminated studies which lie close to current human problems — manual arts, home economics, physical education, music, arts, etc. These emergency efforts at desperate economy seem to have been based on no definite philosophy, and their eventual influence is in doubt.

Adaptation to Individual Differences. The varied attempts to adapt school work to individual differences have had two conspicuous and opposite influences upon this matter of attention to students' needs. The obvious maladjustment of the linguistic type of curriculum to the abilities and interest of

²T. H. Briggs, *Secondary Education*, pp. 358-67. New York: The Macmillan Co., 1933.

³F. Bobbitt: *Curriculum Making in Los Angeles*, Chicago: University of Chicago Press, 1922; *How to Make a Curriculum*, Boston: Houghton, Mifflin Co., 1924.

academically slow pupils has brought about the modification of the traditional studies, the reduction of the list of required subjects, the addition of new subjects designed to provide fruitful experience for the less capable. In this process the fact of differences in needs has been brought to the surface and impressed upon the educational world; the whole question subjects, the addition of new subjects designed to provide of the relation of needs to education has thus been made more of a consideration in curriculum construction.

On the other hand, these attempts at adaptation have led us to make use of the "practical" and the concrete as a kind of relief or escape for the slow pupils. The study of the immediate environment and of actual problems of living is so naturally and highly motivated, and the attack on such problems may be so little dependent upon abstractions, that slow pupils are at less disadvantage in such studies than in the traditional academic studies. That kind of school work tends therefore to be associated with slow pupils and to be known as a "slow-pupil curriculum." From that point it is but a short, though wayward step to the corollary that the brighter pupils should have none of it. Thus we find pupils and even parents, in selecting high school courses, holding fast to the traditional subjects and omitting the utilitarian in order to avoid the stigma of mental inferiority.

Summary. It is evident from the above discussion that the reluctance with which the satisfaction of needs is accepted into full membership in the list of educational objectives is due in part to the persistence of the definition of education which has come down to us from mediaeval times. While the tendency in America has been to broaden this definition to include provisions for a better immediate and future life, it has been resisted by some persons and groups to whom the newer definition seems invalid.

II. What Are These Immediate and Probable Future Needs?

It is not necessary to attempt here an inventory of these "present and assured future needs." That is a task for which the way has been paved by Bobbitt, Charters, and others. It is a tremendous job, one which is not precisely the same for one nation as for another, nor for one community as for another. For the purposes of this discussion it will suffice to present a

few illustrations, by way of indicating the nature, extent, and variety of the needs; to refer to typical systematic studies of the needs of pupils; and to cite a few well known classifications of needs.

Nothing in this discussion should be interpreted as limiting the definition of needs to the practical or the material. It is assumed that the need for the development of intellectual possibilities, for example, is as appropriately included in the list as is the need for good social attitudes; for sawing a board straight, making a good loaf of bread, or adjusting a carburetor.

Since the secondary school has been defined in such a way as to cover a large age-range and grade-range, the maturity of the learner will have to be kept in mind at each grade-level of curriculum making. It is to be noted that in the statement of the Function the clause "in so far as the maturity of the learner permits" assumes a careful adaption to the secondary level. The pupil's stage of maturity will affect not only the number and character of his current needs, but the vividness of the appeal which his future needs make to him as a motivating force, and his ability to profit by the school's efforts to prepare him for his future needs.

The concept of "needs" must also be broad enough to admit the differentiation demanded by Special Function Number 9, as well as the integration which Special Function Number 1 calls for. While team work is one of the conspicuous needs of the present period, needs of minorities are pressing and are genuinely important to society as a whole.

Illustrations of Needs. At this point will be given four illustrations of needs which merit the attention of the secondary school. Three of these, from the respective fields of health, the use of machines, and social efficiency, are of the kind which may be said to touch all who live in our civilization. The fourth, from the field of foreign language, is of major importance only to certain vocational fields.

1. **Health.** An instance of the kind of needs that we are discussing is found in the problem of maintaining physical health. The human machine is to but a limited extent subject to replacement of parts; the problem of health is one of conservation rather than substitution. And the individual is only

mildly interested in vital statistics. He has but the one body; its condition is important. The abounding health of other persons does not compensate him for his own discomfort or incapacitation. There is nothing to which the power of human intelligence can be more profitably applied than to the maintenance of health. Yet we are more inclined than we should be to leave this fundamental problem to chance.

We human beings have created for ourselves an artificial environment which invalidates to some extent the automatic behavior of our organs. We are naturally unadjusted to our circumstances. We are constantly under necessity of inhibiting some natural tendency or other. As one humorist has put it, most of the things that we naturally want to do are illegal, immoral, or fattening. In winter we heat our homes to summer temperature and reduce the humidity to the point where it is injurious to the respiratory passages. We pay for our warmth with colds, heart disease, asthma, hay fever, and tuberculosis. We are ingenious at softening our food and so reducing the effort of mastication; and our teeth, biologically developed by exercise upon all sorts of stubborn materials, respond to this luxury by going to rack and ruin. We have learned to extract certain carbohydrates from natural foods and use them in concentrated form to make new and more intensely enjoyable foods; and renal or digestive disturbances follow. Something or other about our way of living causes nature to overdo its repair work here and there, and cancer results. Obesity, flat feet, and scores of other abnormalities are only natural but inconvenient responses to a man-made situation.

The prevention of physical misery and inefficiency is something which has to be deliberately attended to. The problem is not only complex and baffling, but it changes continually with the changes in our mode of living. Every modification in our way of living brings the necessity of learning a new health measure. The maintenance of health is a thing for which the individual must be educated. He cannot depend upon daily recourse to specialized medical advice. He must not let matters drift until he is forced to seek medical aid, thus making his life a series of recoveries. He cannot escape the need for habits favorable to health and for insight into his own physical nature.

2. **Taking Advantage of Machines.** As another example, the individual has the problem of taking full advantage of common machines.⁴ To sense the importance of this problem, to realize how dependent we are upon machines, it is only necessary to list those which were not in common use a hundred years ago and imagine a day or a week without them. To understand the demands which the use of these machines makes upon the intelligence of the individual, let one cast himself in the role of a mountaineer living in the territory which is to be served by the Tennessee Valley Authority. There are people in that region who have had practically no experience with man-made electricity; yet it is the purpose of the federal government to promote the use of electricity by those people. The project includes not only the development of water power, the generation of electric power, and the making of current conveniently available; the plan includes also the manufacture and marketing of such things as electric refrigerators, and instruction in their use. The intelligence about electric machines which the urban population has been developing for many decades will have to be attained by some mountaineers in a few weeks. Their experience will be a kind of epitome of one phase of American history. The alternating current at 110 volts, backed by tremendous amperage, is a thing which after all should be understood. One, if he is to be constantly in its society should know its friendly moods and its dangers.

Operation. First, there is the problem of the operation of a machine, making it do the things for which it was constructed. In respect to the efficiency with which they operate machines, people spread over a great range. There are manual skills, coordinations of movement, interpretations of the behavior of the machine, variations in use to suit the occasion, all of which help to determine how well the machine will supplement Man's physical power and skill.

Economy. Then there are problems of economy. Since the termination of the World War there has been a reaction from some of our habits of economy which were a necessary adjunct to the military campaign. In the decade which followed the war we developed a fine contempt for scrimping and

⁴Stuart Chase: *Men and Machines*, New York: The Macmillan Co., 1929. See page 225 for "A reasonably complete catalogue of the major items of American Prosperity".

saving. But economy in the use of machines is important for three reasons: (a) The manufacture and operation of machines on the tremendous scale of to-day takes its toll in the direction of the exhaustion of natural resources — metals, woods, fuels, etc. This is important whether this exhaustion is imminent or not. (b) The machine itself and the sources of power by which it is operated represent human labor. To use the machine wastefully is to waste human time and energy. (c) For the individual, economy is important because it is related to the problem of the efficient use of his income. Money saved in the operation of machines may be used to obtain other desirable things.

Safety. Finally, there is the problem of safety. Many machines are helpful to mankind because of their power, but on condition that this power be properly controlled and directed. A mismanaged machine is a potential agent of destruction.

The Automobile as an Example. The automobile is an excellent example. Two automobiles of the same make and model which have been run 30,000 miles each over the same roads may be quite different machines if they have been in the hands of different drivers. One may be ready for the junk pile and the other good for another 30,000. Lubrication involves the application of principles of physics and chemistry; so does the care of the paint and the top. Sudden application of power to the wheels may strip a gear, damage the tires, break an axle, loosen a bearing, or cause the driver to lose control momentarily. It is well for the driver to know something about what goes on in the transmission, the differential, and the clutch. The carburetor, the ignition, the valves, and the cooling system are in themselves complex machines which should be understood by the driver.

Some of the first knee-action cars turned out to be extremely dangerous. In rounding a curve at high speed the centrifugal action of the body proved to be too much for the knee-action device and caused the car to become unmanageable. Those persons who met their death in this kind of accident might have been saved by a better understanding of the mechanical principles involved. The driver who swerves from the road, or gets into trouble in passing another car, or fails to adapt speed to circumstances, (except in cases of reckless-

ness) does so through inability to anticipate the results of his actions; and prediction depends upon insight. While it is of course true that one does not learn to drive a car by reading or theorizing, he will not be equal to all his driving problems without a greater understanding than can be obtained by rule-of-thumb methods. There are probably fifteen million drivers in this country. They are behind us, in front of us, passing us and meeting us, bearing down upon us from all directions. Our accident record suggests that it is a mistake to depend upon luck.

3. **Social Efficiency.** A third illustration is the need for social intelligence and efficiency. The depression has thrown this into strong relief. Generally, our previous "hard times," from those described in biblical literature down to the last one of the nineteenth century, originated in climate, plagues, or other circumstances which prevented man from obtaining from the earth what he needed for comfortable living. This latest depression was of a different sort. It came not from a disturbance of man's relation to nature but from a disturbance of man's relation to man. This time there was plenty of everything, but we could not get it into the hands of those who needed it. One man had a surplus of time, another a surplus of goods, and another a surplus of money. Each wanted what the other had to offer, but the rules of the game prevented exchange. Evidently our social science has lagged so far behind our other sciences that it has a crippling effect upon the resultant of human efforts.

Of course, we cannot hope so to increase the social intelligence of the general population that our economic difficulties will automatically straighten themselves out. The remedies which we need will have to be compounded by experts and specialists. But in a democratic country it is not enough to invent a remedy; a part of the job is to "sell" the remedy. The problem with respect to the citizenry at large is one of developing social insight, of equipping people with the wherewith to understand what is proposed and to evaluate it in terms of social welfare.

The citizen must be equipped and disposed to consider movements, industries, political events as they affect society in general, with less specific emphasis upon his own interests than is customary in these days. He will need to be educated

to bring a social point of view to the consideration of public questions.

4. **Foreign Language.** Among the needs which may be served by the study of a foreign language is one with which teachers are familiar. Those whose vocation is teaching have occasion not only to direct the thinking of their pupils but to help them improve their oral and written expression of thought. The teacher therefore should be capable of an analytical attitude toward language; his understanding of language structure has a bearing upon his skill with which he guides his pupils to explain complex relationships. Other occupations, like law and journalism, also call for a grasp of the fundamentals of language which go beyond what is required for ordinary uses of the vernacular. It is generally agreed that the study of a tongue other than one's own affords a perspective, a detached point of view, which the native language does not provide. This is especially true of a highly inflected language like Latin or German. The study of these languages at the secondary level may therefore provide for an unmistakable "future need."

III. Systematic Studies of Needs

Out of the curriculum construction of the twentieth century has grown the conviction that one indispensable guide for making the school program is the systematic canvass of the things that the children of to-day will do to-day and to-morrow. A few examples of such investigations will serve to illustrate the kind of material which is available for the curriculum maker who is interested in the needs of pupils. Because they originate from a subject matter point of view they do not have the broadly functional character that one might wish.

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- W. W. Charters: *Curriculum Construction*, Chap. XVII, ff. New York: The Macmillan Co., 1923.
- Henry Harap: *The Education of the Consumer*. New York: The Macmillan Co., 1924.
- C. C. Peters: *Objectives and Procedures in Secondary Education*. (Chap. IV. A Blue Print of an Optimum Citizen.) New York: Longmans, Green and Co., 1930.

IV. The Classification of Needs

From time to time various philosophers, educators, and educational organizations have studied human needs by attempting to present a comprehensive view of life through convenient categories of activities, attributes, or ideals. Plato wished his ideal citizen to be "philosophical, high-spirited, swift-footed, and strong." Herbert Spencer classified human activities as "self-preservation, the earning of a living, the duties of parenthood, the activities of citizenship, and occupations for leisure." Some of the better known of these analyses are as follows:

F. Bobbitt: *How to Make a Curriculum*. Boston: Houghton, Mifflin and Co., 1924.

1. Language Activities, Social Inter-communication.
2. Health Activities.
3. Citizenship Activities.
4. General Social Activities, Meetings and Mingling with Others.
5. Spare Time Activities, Amusements, Recreations.
6. Keeping Oneself Mentally Fit, Analogous to the Health Activity of Keeping Oneself Physically Fit.
7. Religious Activities.
8. Parental Activities, The Upbringing of Children, the Maintenance of a Proper Home Life.
9. Unspecialized or Non-Vocational, Practical Activities.

10. The Labors of One's Calling.

F. G. Bonser: *The Elementary School Curriculum*. New York: The Macmillan Co., 1920.

1. Health.
2. Practical Efficiency.
3. Citizenship.
4. Recreation.

Commission on Reorganization of Secondary Education: *Cardinal Principles of Secondary Education*. Bulletin of the National Education Association, No. 35, 1918.

1. Health.
2. Command of Fundamental Processes.
3. Vocation.
4. Worthy Home Membership.
5. Citizenship.
6. Worthy Use of Leisure.
7. Ethical Character.

Commission on Unit Courses and Curricula (North Central Association of Colleges and Secondary Schools).

1. Health.
2. Community Living.
3. Vocation.
4. Use of Leisure.

Committee of The National Education Association on Social-Economic Goals of America. Report of 1933.

1. Hereditary Strength.
2. Physical Security.
3. Participation in an Evolving Culture.
4. An Active, Flexible Personality.
5. Suitable Occupation.
6. Economic Security.
7. Mental Security.
8. Equality of Opportunity.
9. Freedom.
10. Fair Play.

F. W. Ballou: "Washington Experiment in Character Education". *Report of the Third Educational Conference*. Washington: American Council on Education, 1935.

1. Health Activities.
2. Intellectual Activities.
3. Economic Activities.
4. Vocational Activities.
5. Political Activities.
6. Recreational Activities.
7. Sex, Parenthood, and Family Life.
8. Social Activities.
9. Aesthetic Activities.
10. Religious Activities.

A. Inglis: *Principles of Secondary Education*. (Activities and Duties). Boston: Houghton, Mifflin and Co., 1918.

1. Those relating to participation in civic and moral activities under the social-civic aim.
2. Those relating to economic production and distribution under the economic-vocational aim.
3. Those relating to the free use of leisure time under the individualistic-avocational aim.

D. Snedden: *Foundations of Curricula*. New York: Bureau of publications, Teachers College, Columbia University, 1927.

1. Verbal communications, written and oral.
2. Health conservation through habitual safe-guarding practices.
3. Health conservation dependent upon applied knowledge of hygiene.
4. Health conservation through body development and exercise.
5. Cultural participation.
6. Moral (including fellowship) behaviors.
7. Civic behaviors.
8. Religious behaviors.
9. Personal and household regimen (apart from vocational home-making).
10. Vocational participations.

The differences and the similarities of the above lists of general categories of needs suggest that in preparation for the discharge of this Function, the secondary school must undertake a general survey of human activities. Such a survey should be made by experts, and will have for its guiding purpose the revelation of "the important immediate and probable future needs of the students"; it will attempt to organize those needs into a kind of systematic arrangement which will lend itself to teaching. Here the curriculum maker will be an observer and analyst rather than a creator. When the needs have been collected, the organization will emerge.

V. Is the Provision for Needs a Function of the Public Secondary School?

There are thoughtful people who grant that such needs are important and that there should be systematic instruction in anticipation of them, but would greatly limit the function of the school with regard to them. It is argued that nothing should be done through governmental agencies that can be left to domestic responsibility or private enterprise; that it is very much more difficult to obtain adequate funds for any purpose by taxation than through the channels of business and industry; and that governmental supervision if carried to the point of paternalism will tend to destroy initiative and self-reliance.

Its Importance to the Public. It is to be noted, however, that most of the things that people "do anyway" are of prime importance to society. They are activities which concern not only the individual but his associates and neighbors. They are the kind in which constructive training will "promise a profitable contribution to the supporting political and social organization," as the discussion of Issue Number III points out. The health and the social ideals of the individual, for example, have an influence outside the individual. The general human principle of contagion is a powerful developer of common interests. Standards of health and social behavior which the citizen wishes to maintain in his own life he must somehow manage to set up in some degree in those about him.

Efficient participation in the political life of the community is one of the integrating activities to which Issue

Number IV refers. Government in this country is still based on common responsibilities. Undertakings which people carry out together call for common understandings. These understandings society must in self-preservation make sure of.

The Home No Longer Able to Discharge the Function. It has been pointed out that a great many of such needs were formerly cared for by home instruction.⁵ There are many who feel that such is the proper arrangement for this age. The writer once encountered a father who complained bitterly that the junior high school was neglecting its job of teaching his daughters formal grammar, and said that he, a widower and a busy minister of the gospel, would teach them what cooking and sewing they should have. While it is probable that most critics would not go so far in assuming such responsibilities, there is a considerable amount of that kind of sentiment. But the impracticability of such an arrangement is evident from the most superficial study of family life in America.⁶ Parents elect to spend their leisure time in other pursuits. Most parents are not competent to give this instruction. It is certainly true that to leave this function to the home would be to lose the opportunity to bring about improvement in the activities involved. As suggested by the discussion of Issue Number VIII, education cannot be content with present levels of efficiency. Personal and public health, social ideals, political participation, and the use of leisure time are not likely to reach higher levels, generation after generation, if the young

⁵"There was a great deal of education going on in that community, but most of it had no relation to my school.—They (the young people) got a complete set of ideas about economics and government, but they didn't get them from me. It was father's duty and prerogative to explain the beauties of the tariff system and to warn the boys against the Democrats.—In brief, all the heavy work in education was done outside the school. My task was simply to take care of certain skills and information which could not be handled conveniently at home. These were the 'good old days' in education." H. Bode: "Education and Social Change", *Progressive Education*, XI:45-48, (January-February, 1934).

⁶With reference to the understanding of the social order, for instance, Harold Rugg puts it this way: "neither the home, the church, nor the press can be expected to do it. Certainly the home, which in an ideal democracy would serve as the most potent educational agency, is not now equipped to attack the problem.—It is the product itself of an eighth grade education.—Typical American home life, dominated as it is by fatigue, seldom reflects— . . . to it cannot now be delegated the task of educating twenty million young Americans."

H. Rugg: "Century of Curriculum Making in American Schools", *Twenty-sixth Yearbook of the National Society for the Study of Education*, Chap. I, Part I. Bloomington: Public School Publishing Co., 1927.

are to have only that training which the parents have received from their grandparents.

Whatever the ability of some favored parents in this direction, at the lower end of the social scale there are children whose parents are wretchedly deficient. Some of these parents are themselves examples of the exact opposite of what is desired. Public welfare demands that this incompetence or perversion shall not be continued into the next generation. It is agreed (Issue Number I) that the purposes of public education cannot be accomplished if instruction in matters of importance to the whole population be limited to some fraction of the young people.

School Equipment Essential. Many of the skills, attitudes, and insights necessary to the fulfillment of needs require for their teaching some kind of laboratory or other typically scholastic situation, with which the home is not equipped. The action of gears and carburetors and ignition systems is difficult to make clear without sectionalized models. Principles of refraction and reflection of light and their relation to the care of the eyes are most clearly demonstrated in the physics laboratory; the apparatus has the same advantage for this kind of learning and teaching as it has in the regular physics classes. Social attitudes are best acquired through activities which involve relations with persons and groups; the superiority of the school over the home in this respect is evident.

In short, since this highly necessary instruction is generally assigned by all disputants to either the home or the school, and since for the purpose the school is vastly superior, it seems inevitable that the responsibility be placed upon the latter institution.

VI. How May the School Discharge This Function?

What Are the Needs for Which the Secondary School Should Provide? Two inventories are required as the first step in providing for the needs under discussion here: An inventory of the human needs for which the school is to plan; and an inventory of those which seem already to have been satisfactorily provided for by the elementary school and other agencies. This "taking stock" of needs already covered is essential to the kind of articulation with other units of the

school system which Issue Number X demands. A comparison of the two inventories will indicate the field for which the secondary school is responsible. The length of the final list of needs to be satisfied by secondary education will be determined in the main by four kinds of limitation: the maturity of the pupils; the attitudes and outlook of the teachers; the limitations of time and money; and limitations arising from the principle that the school is an investment by society for its own benefit. To act in harmony with this last principle, the school must decline to serve needs when, by so doing, it merely enables the individual to make a better living, or to enjoy his selfish life more fully, or gain some other advantage over other persons. Wherever the school sets out to improve the individual, there must be a strong probability of profit to the social group whose agent the school is.

It is evident that such a list of needs will include those which are universal; those which characterize the great majority of people; those which occur frequently; those needs which are peculiar to a minority, but which are important with respect to a minimum scale of living; those which are inescapable in the consideration of social justice in any of its aspects; those which, though limited to a small minority of people, are, if neglected, dangerous to society or definitely deterrent to social progress.

Emphasis Upon Outcomes Rather Than Materials. It would seem to be axiomatic that in the performance of the function of satisfying needs, the school should judge its own success by effects rather than by exposures. This is somewhat at variance with current practice. In spite of perceptible efforts to consider needs, the secondary school commonly rates the education of its graduates by the subjects which they have studied rather than by the things that they can and will do. It has been suggested above that in making up its list of responsibilities the secondary school will not repeat what the elementary school has already done. But the question as to what the elementary school has already done will be answered by means of a study of the pupils as they enter the secondary school, not by listing the experiences which they have had. Similarly, in its own efforts to serve their needs, it will point the instruction directly at the needs and will judge the instruc-

tion by the characteristics which the pupils subsequently exhibit.

The Traditional Departmentalized Curriculum vs. the Direct Attack. Whatever may be the general merit of the present departmentalized secondary school curriculum, such ministry as it offers to the present and assured future needs of the pupils is to be regarded as fortuitous rather than as the result of skilled or deliberate planning.⁷ A high school subject is ordinarily defined and arranged in such a way as to take advantage of the logical relations between its units. The sequences and memonics and functional dependences of the subject as commonly organized are based upon the internal relation of fact to fact rather than upon the relation of fact to human problems. From this, two things result which minimize the usefulness of the instruction in caring for human needs: The connection between the fact and the problems which it might help solve is seldom made by the pupil; and the fact itself, thus unassociated with the kind of experience which comes up repeatedly in daily life, tends to be lost in the process of protective housecleaning which nature carries on in the mental storehouse.⁸ Highly departmentalized subjects are therefore extremely wasteful for the purpose which we have in mind here. It follows that some new arrangement is desirable. Issue Number VII discusses this problem, among others, in calling for more comprehensive units of work.

Compromise Measures. Secondary-school people have not been entirely idle with respect to this difficulty. Efforts have been made to minimize the prominence of subject matter division lines. The devices used for the purpose fall into two groups; coöperation between departments in attacking problems of common interest; and the organization of integrated courses compound of elements of several of the traditional subjects. New materials have been added, some non-essentials eliminated, and a generally more vital tone produced. The

⁷For a summary of opposing points of view on this subject see John Dewey: *The Child and the Curriculum*, pp. 12-14, Chicago: (University of Chicago Press, 1902).

⁸"Even under the best conditions of teaching and administration emphasis on subject matter divisions seem to destroy the significance of a pupil's whole educational experience." B. P. Fowler: "Disintegrating Tendencies in Departmentalized Education", *California Quarterly of Secondary Education*, XI:320-3.

reader is doubtless familiar with examples of both of these co-operative plans. They have quite definite advantages and represent a step in the right direction. It is true that ingenious teachers can make more use of such courses for practical purposes than they could make of the old courses. It is interesting that general science, general mathematics, general social science, etc., have been attacked by certain of the respective subject matter specialists on the grounds that such an arrangement destroys the identity of the tributary subjects; that the result is a kind of academic sport with no logical affiliations. It is obvious that to these critics the integrated course is still a subject matter course of an inferior sort; that its characteristics have not led them to think of it as having need-satisfying functions. On the other hand some specialists have seen in this type of fusion possibilities for greater usefulness, and are thinking ahead along this line.

Suiting the Organization to the Kind of Need. It seems inescapable that the way out for the proper discharge of this particular duty is through a direct functional attack upon the needs themselves. Instead of starting from a body of subject matter and striving to find ways of relating its various units to these needs, we shall have to start from the need and carry on a search for the related subject matter. Under such a plan as that briefly described under Issue Number VII, no departmental loyalties would be considered. In the search for the solution to any given problem, any field of learning or experience would be open hunting ground. The content of such a functional course would be gathered, not by pouring in contributions from a group of established courses, but by means of foraging expeditions sent out from a headquarters occupied by living problems. Admission to the content would be by invitation rather than by application or demand.

The problem suggests three kinds of procedure, the first two to be superseded eventually by the last:

- a. Each teacher should scrutinize the content and method of his own field to determine its relation to human needs; and he should gradually and constantly modify his teaching to serve those needs more and more effectively.
- b. Groups of teachers should work together to achieve

a clearer and more comprehensive view of human needs, and to make plans for discharging the full duty of the secondary school in this respect.

- c. A body of experts should be set up to prepare the the best possible answer to the question "What are the important immediate and the probable future needs of the students?"

A critical essential is that the needs be served by the resulting curriculum. If a section of that curriculum is planned to take care of training for health, then training for health must be the beacon by which the course for that section is laid; health must not be incidental as under the present regime. Content and method must be frequently revised in the light of the tangible effects upon the health of the pupils.

Into such a program must certainly be incorporated the extra-curriculum activities of the school. These activities are for the most part highly motivated applications of abilities and understandings which the curriculum aims to promote. Most of them involve social situations which serve admirably as laboratory setting and material. Some are recreational, some promote appreciation of the arts, some are related to physical development and efficiency. Well selected and regulated extra-curriculum activities have a more obvious relation to the after-school-days life than do many of the experiences which now make up the approved secondary-school curriculum. The value of such a program in relation to needs is clear.

Guidance. It is an accepted principle of guidance that the share of the pupil in the direction of his own education should be increased as rapidly as maturation permits. The statement of this Function postulates that the "social and personal values" by which the "behavior of youth" is guided must be "always clearly perceived and appreciated" by the student.

The learner's convictions about his own needs are important both as a basis for the selection of curricular items and as a motivating influence. As pointed out in the discussion of Issue Number IV, it is wise to put faith in the pupil's interests. As he grows older, he has a better and better notion of both present and future needs; and those notions serve at least as clues in our general search for needs. Furthermore, these needs which the pupil sees most clearly are those which

most readily move him to action; it is the part of wisdom, in the interest of economy, to take advantage of this force.

It goes without saying that an important part of the task of the secondary school is the maturation of the pupil's point of view. One highly important element of general maturity is a sense of values which is not confused or distorted by the immediacy or remoteness of satisfaction. The tendency of the young child to grasp at the bright object close at hand gives way gradually to the ability to judge values regardless of intervening time and distances, and the habit of guiding one's own conduct on the basis of long-time planning which considers more and more remote satisfactions. The school must do its part to develop this adult attitude. A second element of maturity is the kind of social insight which enables the individual to gauge the value of his acts not only in terms of their direct effects upon himself, but also in terms of their indirect effects as they rebound from the social milieu. In common parlance this is called "social sense," and in the terminology of the psychologist "social intelligence." Before the individual can be thought of as mature he must be able to judge the social consequences of the things that he does, and must be disposed to attach significance to those consequences.

To this end, the maturation of the pupil's point of view, are directed many of the activities of the secondary school which are classified under the term "guidance." Guidance recognizes both the obvious immaturity of the pupil and his need for maturity. Its ultimate purpose is to make its services unnecessary, to bring the pupil to a degree of self-reliance which eliminates the need for guidance. A part of this self-reliance is, as shown in the preceding paragraphs, a mature point of view with regard to one's needs.

It will not be amiss to point out here that among the immediate needs of the pupil are certain things which are not so much a part of the curriculum as of the means by which the pupil makes his connection with the curriculum—the methods of study, for example, which the school teaches him, and even the methods by which the classroom work is conducted. Such factors as these condition the outcome just as positively as do the materials which make up the curriculum. The pupil's methods of study will likely remain longer as a part of his personal equipment than some of the curricular material which

he acquires during his high school days. Good methods of study are valuable as long as the possessor lives.

The pupil's immediate and probable future needs are then appropriate to the purposes and facilities of the secondary school. To satisfy these needs it is idle to depend upon a kind of training which merely develops the pupil's general ingenuity. Objection to specifically purposeful education practice is sometimes made upon the grounds that the needs of one person are bafflingly different from those of another, and that times change so rapidly as to embarrass and stultify anyone who attempts to predict future needs. This kind of objection, in the opinion of the committee, does not so much deny the validity of the Function as call attention to obstacles in the way of its discharge. The majority of needs do persist in reasonably stable form for years and even generations. Those which change rapidly or frequently are a challenge to the agility and the resourcefulness of the curriculum maker.

The educator is challenged not only by the changes in needs but by their number, variety, and complexity. The individual teacher can make a beginning by accepting the pupil's needs as his responsibility, and by directing his teaching toward them. Eventually, the inventorying of needs must be systematically done by capable persons in sufficient number and with adequate material resources. The selection of the list for the secondary schools' share must be done with wisdom. The arrangement of educational experiences to serve these needs must be done with professional intelligence and skill. And the use of this "curriculum" must be carried on by enlightened and versatile teachers.

HEBER H. RYAN.

FUNCTION III

To reveal higher activities of an increasingly differentiated type in the major fields of the racial heritage of experience and culture, their significant values for social living, the problems in them of contemporary life, the privileges and duties of each person as an individual and as a member of social groups; to make these fields satisfying and desired by those gifted for successful achievement and to give information as to requirements for success in these fields and information as to where further training may be secured.

INTRODUCTORY SUMMARY

So completely dependent is man upon the past that the loss of his cultural inheritance would mean the collapse of civilization. It is to preclude such a possibility as well as to lay the basis for further social progress that schools are established. It is their function to acquaint young people with the materials of living, to represent to them an accepted way of life, and to reveal opportunities for higher activity in the major fields of their heritage of experience and culture.

All educational institutions share this general function. But just as there are particular reasons why the elementary school should bear the main burden of integrating children, there are likewise particular reasons why the task of revealing higher activities should weigh most heavily upon the secondary school. It is usually during the period of adolescence that the possibilities of mature living begin to dawn upon the individual. At this age and immediately following it, a youth prepares to enter upon the broad concourse of adult life. He begins now to anticipate the higher activities which older people engage in. It is natural, therefore, that he should turn to the secondary school to give him some inkling of what the higher activities are like.

Unfortunately for its pupils, the secondary school has too often disappointed rather than satisfied the eager mind of youth. It apparently assumed that the revelation of higher

activities mattered only with gifted children and would take care of itself in the natural course of events. At any rate, it left the whole problem to the pupil himself or to the chance interest of the teacher. At one stage in the history of American education, this system, or rather this lack of it, may have sufficed. But recent events have forced upon the schools the bitter fruits of their neglect. They now realize that to give to the present school population—made up of all sorts of pupils—some idea of the finer opportunities and the more durable values of life is a problem at once difficult and acute. They have also discovered—and this is the nub of the matter—that they do not possess the essential techniques by which the problem can be solved.

The secondary school can develop the necessary techniques only as it comes to understand the exact nature of its problem. Fundamentally, its problem is to interpret the higher activities to each pupil in terms of his power to engage in them profitably. It is to disclose to pupils new and challenging opportunities for work and study which they can undertake with benefit to themselves and to society. It is to explain clearly to them the conditions under which they can enjoy the values which the best forms of experience yield. It is even to bring these experiences into the curriculum itself where pupils can be encouraged to take part in them and to enjoy them. By using every means at its command, the secondary school must help its pupils to cultivate in number, variety and depth the enduring interests which intelligent people develop from their contacts with life.

Important as this function is, the secondary schools cannot be expected to perform it successfully under unfavorable conditions. Although there are conspicuous exceptions, one cannot say, for example, that secondary schools are generally staffed by men and women of high qualifications—persons rich in their interests, stimulating in personality, and masters of their subject field. Nor can one say that secondary schools are commonly places where young people come into contact with the vital issues of their personal and social life, issues which must be faced before many of the higher activities can be truthfully revealed.

Educators should realize, however, that one of the surest ways to remove unfavorable conditions is to combine protests

against them with efforts to make the schools as effective as possible under the circumstances that prevail. Much can be done to improve the quality and diversity of the educational program in many localities by reorganizing smaller schools into larger units. Moreover, in interpreting higher activities to pupils, the school need not consider itself the sole source of material nor the only agent of revelation. The home, the community, indeed all areas of the environment should be carefully surveyed for higher activities of a kind that the school cannot directly provide. Pupils can be encouraged to observe and take part in them just as much as if they were a part of the school program.

As in the case of most other problems of the secondary school, the ultimate solution of the problem of revealing higher activities and of differentiating them as the pupil grows older centers around improvements in the curriculum and in the quality of instruction. The responsibility for initiating and sustaining these improvements falls largely upon the institutions which prepare teachers, but it should also be shared by the teachers now in service. Most of them are anxious to share it when permitted to do so. The coöperative study of the secondary-school curriculum by the teachers of Virginia gives convincing evidence of the power of teachers to attack educational problems constructively and to raise the standards of their instruction.

Such instances of the readiness of teachers to support constructive movements in education ought to hearten all those who believe that the revelation to pupils of the higher activities of their racial heritage is a part of the basic function of schools. For if secondary-school staffs, and through them boards of education and parents, can be brought to share the same belief, the major battle to include this function in the work of the secondary schools can be won.

I. The Meaning and Nature of the Function

It is clear that much of what is involved in the statement of Function III is of direct application to every stage in the process of educating human beings. With the possible exception of the last item the elementary school is concerned at least incidentally in all aspects of the revelation described. But none

the less it is during the period of adolescence, when the youth is feeling his way toward independence of parents and home, and looking about him for the means of establishing himself as an individual in society that these aspects of secondary education become peculiarly important.

Relation to the Issues of Secondary Education. This function is directly related with decisions resulting from the previous discussion of issues.¹ The concern of secondary education with the welfare and progress of the individual only as these promise profitable contribution to the supporting social and political organization (Issue III) implies of necessity that the secondary school shall develop in the student an understanding of his privileges and duties as a member of social groups. Again if secondary education is to reveal to students the manifold higher activities possible for them in the major fields of the racial heritage of experience and culture, the differentiated offerings called for in Issue IV are obviously necessary. Some of these offerings will be designed for those who are not planning continued formal education. They will be in the realm of vocational education discussed in Issue V. The present function emphasizes one of the points already made in that discussion, namely, that one of the main aims of vocational education is to cause the pupil to see the significance to society of the work he proposes to do, and to appreciate his own opportunities and duties to contribute through that work to the sum total of human welfare. Again one of the justifications for the discussion in Issue VI that secondary education should be primarily concerned with the present value of its own courses rather than with preparatory and deferred values is exactly that students may find in them "significant values for social living" and such satisfaction as may make further learning desired. Issue VIII in turn emphasizes the responsibility of secondary education for the establishment of desirable attitudes and ideals, and Special Function V involves the cultivation of desirable attitudes as part of its duty of revelation. Further, if secondary education is to be a "distinct but closely articulating part of the entire educational program" (Issue X), it follows that this function of revealing further

¹Committee on the Orientation of Secondary Education: *Issues of Secondary Education*. Department of Secondary-School Principals of the National Education Association, Bulletin No. 59, January, 1936.

and higher possibilities in the major fields of the racial experience and culture is present in every grade from the seventh through the fourteenth. Thus a discussion of Special Function III grows naturally out of the foregoing presentation of Issues.

Its connection with the chapter which precedes and the chapter which follows is obvious. Special Function II treats of materials basic to a curriculum in secondary education; the present function emphasizes the school as the means whereby the student, through varied, stimulating, and enriching experiences may understand and feel the significance of possibilities latent in activities lying beyond, and may become intelligently interested in further participation in them.

The meaning of the function is a natural extension of Briggs's Golden Rules of education. "The first duty of the school is to teach pupils to do better the desirable things that they are likely to do anyway. . . . Another duty of the school is to reveal higher activities and to make them both desired and to a maximum extent possible".² While education cannot exist without some sort of concomitant revelation, the function of revealing possibilities further ahead, of leading the student on to realize the fullness of what is possible is one which has not been fully recognized, certainly not in systematic practice. It is especially the province of secondary education for the reason that for many students the high school or the junior college is terminal.

A teacher may think that he is revealing higher activities when he is teaching quadratics or subjunctive clauses in the usual formal manner. And in a sense it is true that relationships, applications, values, are revealed to the student in the very experience of working through formal courses of study, which in themselves may be revealers of subsequent and higher courses of similar study. It is important to observe, however, that the words "higher activities" are not used to connote such a hierarchy of knowledge as one finds displayed in the sequence of courses in a university catalogue. "Higher" is to be interpreted in reference to the power of each boy or girl, man or woman, at all stages of secondary education, to every individual therein capable of being benefited by its application. It is the culture of a democracy which is in question. The major fields

²T. H. Briggs: *Secondary Education*, pp. 258 ff. New York: The Macmillan Co., 1933.

of the racial heritage and culture include but are not identical with the traditional academic fields of instruction. It is just as imperative that secondary education should reveal to the young carpenter the possibilities of expert cabinet designing as that it should reveal to the facile calculator the possibility of higher mathematics.

What is meant is that in the major fields of the racial heritage and culture secondary education shall endeavor to disclose to the child who has already acquired a general knowledge and understanding of the world, glimpses, views of regions as yet unexplored and opportunities for work to be done therein. It means further that the school shall reveal those tasks in terms of their resulting benefits to society as a whole rather than to the individual alone. It means also that there is a duty imposed upon the secondary school to show its pupils that the pursuit of higher activities in these fields offers now as it has always offered some of the permanent satisfactions of life. It implies again that when the student has grasped the possibilities disclosed, the school should be frank in giving him what information is available as to the abilities and skills required, and shall use all its accumulated knowledge of the individual in guiding him to a wise choice from among the wide variety of higher activities awaiting his trial.

II. Secondary Education and Its Neglect of This Function

Causes of the Neglect of the Function. Secondary education in foreign countries, being designed for those who prove themselves gifted in academic studies, has never accepted this function as applicable to the entire population. But the selective nature of the secondary-school population of France and Germany and to a less degree of England, the excellence of the teachers, and the rewards and promotions which accompany success have made it possible for many European secondary schools to exercise this function with distinguished success when the limited number of those educated is considered.

But it is idle to suppose that secondary-school curricula developed like ours upon old-world models can suffice for the schools of a democracy which contemplates the education of the entire population. This truth has become more and more evident in the last forty years with the constant increase in the high-school population. As a consequence "practical" courses

have been added to the curriculum and vocational schools have grown up in and alongside of academic schools. But this development has proceeded without any general recognition or even consciousness of the importance of the function here discussed. The process has been one of *adding courses* rather than of revealing to individuals the possibilities open to them in activities already existent or even in the new ones: a procedure by which more dishes were added to the cafeteria before the youthful consumer had learned what nutritive values they contained in terms of his own needs. There is ample evidence that secondary education has not generally succeeded in revealing to students higher activities satisfying and desirable to them in the major fields of the racial heritage. Large numbers of students normally have dropped out of secondary education at every stage from the seventh to the fourteenth grades. Presumably the effect of this function in education would be most evident at the culmination of secondary education at the end of the fourteenth grade; but it is significant that precisely at this point elimination in the liberal arts colleges is at its peak.³ It is true that in the last few years large numbers of boys and girls and some men and women have taken refuge in secondary schools, but many of them have done so because there was no other place to go.

These facts provide no ground for captious criticism of the administrators and teachers of secondary schools. The rapidly increasing demand for services in secondary education since 1890, the resulting scramble to provide and obtain able and adequately trained teachers, the excessive burdens which they have had to carry, and the resulting mechanization of methods and curricula, inevitably resulted in the neglect of this and of other functions of secondary education. This neglect has had peculiarly unfortunate results upon those groups which in the high-school population lie at the extremes in terms of ability and intelligence as determinable by present school techniques. Several investigations, notably the Pennsylvania Study conducted under the auspices of the Carnegie Foundation for Advancement of Teaching, have shown that the ablest boys and girls are often those who find the least revelation and stimulation in the high-school curriculum.

³W. C. Eells: *The Junior College*, Boston: Houghton, Mifflin Co., 1931.

With regard to the lower group we have now available evidence from the educatee himself. Those intrusted with education in the camps of the Civilian Conservation Corps find in general that the men do not wish any further experience in the kind of education they have known. "Instruction of the prevailing public-school type has been distasteful to many and is adapted to neither the interest nor the need of the group."⁴ This summary statement made on the basis of experience with approximately a hundred and fifty thousand men representative in the main of the less able group in our public schools bears out the statement, "by any reasonable audit secondary education for the masses is bankrupt." For it is idle to say that secondary education is yielding a profitable return to society when those who are exposed to it feel a pleasurable relief when the experience is over. If secondary education is to do a better job it must marshal its forces with the definite intention of revealing desirable possibilities in the experience of higher and more differentiated educative activities. This has been one of the main objects of the educational work in the C. C. C. camps. While this work, which is entirely optional, has naturally been more effectively developed in some camps than in others, the fact that by the autumn of 1935 three quarters of those enrolled were voluntarily participating in the educational program indicates that an education aimed at revealing the higher activities possible to individuals fulfilled in these cases at least a hitherto unsatisfied need.⁵

III. Implications of the Component Parts of the Function

The Major Fields of the Racial Heritage. It is fatally easy to assume that school people in the natural course of educating their pupils have empirically established the major fields of educational experience by means of the traditional curriculum of secondary education; that the fields are science, mathematics, the mother tongue, foreign languages, history and the fine arts; that the teacher who is an enthusiastic master of his field will fulfill his obligations as a revealer when he teaches his subject well. The validity of the traditional subjects as

⁴*A Handbook for the Educational Advisers of the Civilian Conservation Corps Camps*, prepared by the U. S. Dept. of the Interior: Office of Education, U. S. Government Printing Office, Washington, D. C., 1934.

⁵John W. Studebaker: "An Overview of the Civilian Conservation Camps". *Junior-Senior High-School Clearing House*, (December, 1935).

fields of study will be commented upon later. The most promising developments, however, which can be observed to-day in secondary education are resulting from a determined re-thinking of the major fields of the racial heritage and the translation of findings into activities, programs of study, and curricula, specifically designed to fit the needs of the boys and girls to be educated. It is unnecessary to reproduce examples of the findings of those who have thought and written on this subject, for the reason that this topic is treated in Issue VII; and again in Special Function II, a number of statements are presented from various educators and philosophers in which present and future needs and activities are arranged in comprehensive categories. These categories are valuable as guides. What is here to be emphasized is that teachers will be successful in the fulfillment of their duty to reveal higher activities in the major fields to some extent in proportion to the effort they themselves have made to discover and then to relate these fields to the students with whom they deal. It must be emphasized also that secondary education in performing this revealing function should make the learner the center of interest, not what is to be learned; should concern itself primarily with the learner's experiences; and should think of increasingly differentiated activities as a means of making those experiences richer and more useful to society.

Activities of an Increasingly Differentiated Type. The junior high school in theory at least affords the student opportunity for trial and exploration, in the course of which teachers and others entrusted with counseling and guiding may observe and record not only achievement in school courses of study, but activities engaged in, and projects executed which are significant of the student's interests and aptitudes. The junior high school is not unique in providing opportunities for exploration. Before the child enters junior high school he has had opportunities to explore. Exploring in the elementary school, and the junior high school period of exploration, with the adequate record of its results, are only the prelude to exploration in the senior high school in smaller areas, and so on to still smaller areas of activity in vocation, industry and commerce, or in pre-professional study in the junior college. The smaller areas still most common in the senior high school are the traditional courses of study.

The conventional subject courses have been the object of unlimited criticism.⁶ In their present form they maintain themselves as the main base of the American high school curriculum because inertia is easier than taking thought. They have often been disjunctive, compulsory without reason, lacking in large meaning to the learner, and deserving of much of the criticism they have received. In consequence "subjects" are often taught by men and women who have lost faith in them as a functional method in secondary education, and many courses have been so emasculated as to lose all semblance of their proper nature. They will recover their proper nature when, in relation to individual needs they become agencies by which higher activities of an increasingly differentiated type may be revealed.

For it is important to remember that interests and aptitudes, whatever their nature and degree, will as they develop be characterized by an increasingly high level of intellectualization. Interests become intellectualized as they advance. The recognition that all advancement of all pupils involves increasing intellectualization of experience means that pupils, at least the ablest of them, will develop a need for and an ability to profit by an understanding of principles, generalizations, ideas which illuminate relationships between facts hitherto unrelated. It means that students—a few to a great degree and many to but a small degree—will develop a need and an ability *purposefully* and with *appreciation* to use subject-matter which is logically organized and so presented as to lead to these natural next steps in the learning process. The major areas of the racial heritage of experience and culture have been traversed, cultivated, possessed, and expanded through the intelligence of past generations; and teachers, for purposes of education, have organized from these labors special fields of instruction. It is not by chance nor from mere tradition that material has been so organized, else the phenomenon of its organization would be neither so universal nor so lasting. In general the special fields of instruction and learning have logical grounds for their existence. It is true that they have often been preserved blindly and employed mechanically in the traditional high-school curriculum, and have been imposed on

⁶The subject of conventional-school subjects as against more fundamental categories is discussed in Issue VII.

children without regard for the learner's development of interest. But they have integrity as points of view which the learner will inevitably take as he proceeds to the higher levels of intellectualization. One may view the same body of facts from the standpoint of the historian, the scientist, the mathematician, the philologist, and the artist; the facts assume their shape and color only when such trained and competent vision is brought to bear upon them.

For example, the common provision for a course in general science in the junior high school is the natural forerunner of an increasingly differentiated type of learning in science in the senior high school. We may perhaps think of this differentiation as bifurcating at the conclusion of this period of exploration in the field of science. One main stem leads directly to the mechanical application of scientific principles in vocations, or less directly to a further examination of their application in the semi-professions. The other main stem leads to further study of one or more of the subdivisions of the field of science.

Likewise the exploration and revelation resulting from the courses in general language which have been developed here and there will lead in some cases to the study of a foreign language with the object of mastering it as a tool. The teaching of foreign languages in our secondary schools has too often been a blind and thoughtless imitation of the practice current in countries in Europe where such tools are necessary for a great number of occupations. The resultant criticism has tended to denature them to such an extent that in some cases to call them language courses is a misuse of words. The primary object of a course in a foreign language is to master the language so that it can be used as a tool. Teachers of foreign languages should therefore be masters of what they teach, and in addition acquainted with all the uses to which a foreign language may be put as an instrument in still higher activities in the major fields of the racial heritage of experience and culture.

Again, a preliminary survey of mathematics in the junior high school will serve to reveal its services in the development of civilizations and cultures, its varied uses in the world to-day, and thus to develop an attitude of sensitive appreciation toward the part which mathematics can play in the solution of problems. Or again, after the student has acquired certain

skills in the mother tongue, his experiences in the junior high school should be continuously revealing satisfactions to which the mastery of the English language whether spoken, written, or read are the key. That the pupil may feel its value for seeking, obtaining, and keeping a job, for social conversation and written communication, for business and politics, not less than in literature, criticism and drama, should be a constant aim of English courses which lead up to the more differentiated work of the later years of the senior high school. It is needless to multiply examples from other fields.

Their Significant Values for Social Living. If secondary education is concerned with the welfare and progress of the individual only as these promise a profitable contribution to the supporting social and political organization, it is obvious that the higher activities of an increasingly differentiated type which it reveals to students shall be revealed in the light of their values not only to the individual but also to society. This seems almost too obvious to be repeated. It entails however a complete rupture with the still persistent notion that schools are places which enable us to advance our personal fortunes without regard for others, that we go to school to make money, or to escape boredom when money cannot be made. It supports those more recent developments in vocational education which emphasize consideration of the relative values of different vocations to society, and those efforts which look towards reorganizing the social studies in the secondary school so that they may be more directly influential in the improvement of social living and in the understanding of critical problems.

It involves also a reorganization more or less thoroughgoing in the accepted fields of study in the secondary school. At any rate teachers and administrators should ask themselves the question to what degree present senior high-school courses in the different fields actually reveal to students their significant values for social living. A thoughtful consideration of that question will at once raise some doubts about the validity of many current practices in the secondary school.

For example, in the student's normal school experience in science he may begin the study of chemistry without any preliminary overview of the entire field of science. If he is fortunate he will approach it after such a description of the field as is provided in a course on general science. Even so, if one

of the functions of secondary education is to reveal the higher activities of the major fields of the racial heritage *in terms of their significant value for human living*, it is reasonable to ask whether the specialized study of any science should precede a somewhat more detailed consideration of the relation of science to human welfare. There are a multitude of questions which at present crowd upon the young scientist in the course of specialization which properly ought to be raised and answered in the process of revealing what specialization means, and to motivate it once begun. What are the critical problems which the various sciences have to solve in the immediate future? What are the most promising applications of scientific principles as far as human welfare is concerned? What have the various sciences contributed to the well being and happiness of man? Is it not possible to devise for students at the secondary-school level an overview of science in relation to human welfare which would reveal to him the steps in the process of pushing back the pall of ignorance and superstition? What are the most needed next steps in the enlightenment of man? Such an overview would reveal to the student the sources of energy over the earth's surface, the manifold uses to which that energy is put, the vastly greater uses to which it might be put, the hindrances and impediments which prevent the full service of science to man. The investment theory of education is more directly concerned that science teaching at the secondary-school level should have these objectives before it than that it should regard science as a body of technical knowledge to be mastered either for immediate use or as a preparation for future study. One can imagine such an introductory study, skillfully prepared by qualified scientists and educators, fulfilling the purposes of the present special function of secondary education in all of its various aspects. It would reveal countless higher activities of an increasingly differentiated type in terms of their values for social living and in terms of the problems they entail; it might at the same time be singularly adapted to the needs of the scientifically-minded American youth, by describing to him definite tasks congenial to his nature, tasks which he would eagerly desire to equip himself to perform.

The trained scientist is inclined to reply that the sciences are separate entities; chemistry is chemistry, physics is

physics, biology is biology, and you cannot master any one of them by studying something else. To study science is to study science, not what it might be or what it has been. Yet the scientist too is a man, and is interested in all that facilitates or impedes the full benefits which scientific knowledge may bring to mankind. He is aware of the fact that thousands of useful applications of scientific principles which might now be benefiting mankind are withheld from use simply because the development of science in its human relationships has lagged behind the development of scientific techniques.

To many high-school students science proves stupid and remote from all their interests because specialization has taken place too soon. It should not take place until its value has been revealed to the learner. At what level the secondary-school student should approach the technical study of science, whether indeed such study belongs in the secondary education at all in the case of students who contemplate liberal education in college, is a problem for educational scientists to determine. One thing is certain, that that approach should not be made until secondary education has revealed to the student what are the significant values entailed in terms of social living.

The Problems in Them of Contemporary Life. The studies of adolescents seem to indicate that the problems of contemporary life which are most insistent are personal and not social in the larger sense of the word. They arise from such fundamental urges as the desire of the adolescent to "belong," to establish himself in the estimation of the group, to retain the protection of home and yet to become independent of home. Reports from the C. C. C. camps indicate that the men in general are devoid of interest in the causes which have made these camps necessary, and are interested primarily in the personal problem of getting a job. These men on the average have experienced about two years of secondary education. It does not seem to be usual for the student to become actively interested in the problem of society until the last years of the senior high school. In any case it is obvious that until he has attained some degree of unification in his motives and desires, there can be little return to society for the investment which it has made in him.

But the scope of this element in the function cannot be restricted only to those who complete the high-school course of

study. Teachers should endeavor to reveal to the student who drops out of high school such higher activities as are suited to his abilities *in terms of his own problems in present day living*, and they should remember that a widened range of experiences and activities for him so long as he remains in school is one way of preparing the individual to make his contribution to society.

The reorganization of the social studies now taking place will undoubtedly result in enabling secondary education to discharge Special Function III more effectively in the case of the older students. Meanwhile one can read through some of the textbooks in this field now used by secondary schools without finding an adequate treatment of a single critical problem of contemporary life. How far it is possible in any school or school system to insure in classroom courses direct study and frank discussion of current problems, or even the statement of facts upon which such a study must be based, will be determined by local conditions. In many quarters the pressure of vested interests blocks any attempt of the school to bring to students a real understanding of present-day social and economic problems affecting the higher activities they anticipate. In every school, however, opportunities surround the alert and competent teacher to discharge this duty for individual students. It is surely the duty of all persons entrusted with guidance, and of all teachers in so far as opportunity presents itself, to point out to the student those existing conditions which will affect the higher activities which now seem desirable to him. This obligation ought to be discharged throughout the whole range of intentions and ambitions of studies. If vocational education had recognized this obligation in the past as it accepts it now, many English boys who in 1900 were definitely trained to become coach-builders would not have found themselves without a vocation ten years later.

There are many high-school students who are looking more or less definitely toward entering the profession of education. Here at least the teacher can make them aware of the problems which will affect them and will determine to some extent the next steps in their specialized activities. He will reveal the major tasks of education awaiting the next generation of teachers in the United States, the present and the probable future relation between teacher supply and demand, the new

type of teacher which new conditions are demanding, and the economic bases of educational security.

It is unnecessary to multiply examples for individual vocations and professions. The problems of contemporary life which affect them all indiscriminately ought to be revealed to students so far as possible in terms of the activity contemplated. Such problems are the relation between men and machines, the employment of leisure, the relation between the individual and his government, between races, between nations, the more equitable distribution of wealth, and the control of war.

The Privileges and Duties of Each Person as an Individual and as a Member of Social Groups. The aspect of Special Function III which is described in these phrases emphasizes revelation of qualities of character essential to full achievement in higher activities. This is indeed an unlimited field of revelation. It involves not only the duties of the adolescent in relation to family and the other sex, but also the sources and bases of his judgments of right and wrong. It has been pointed out in other chapters, particularly in the treatments of Issues VII and VIII, that with the declining influence of home and church, the school has necessarily been obliged to assume the duty of developing understandings and attitudes favorable to such group membership as a democracy requires.

The most powerful influence in the development of these personal and group integrities is the mores of the group; the general *esprit* and morale of the school. These depend ultimately upon the personal quality of administrators and teachers. But none the less, opportunities surround the instructor to reveal to students that their preferred higher activities carry with them specific obligations. The teacher has the opportunity of pointing out that professions carry their social obligations; that they are in some countries already regarded as functions of society for its own preservation, and are increasingly so regarded in our own country. Especially obvious is the social obligation of the professional man who has received his training in public institutions. The teacher has the duty in the case of all students to reveal the obligations of the citizen to concern himself with honest and efficient government in his own community. This revelation may go hand in hand with the discovery, strangely novel in a democracy, that

the profession of politics, and participation in local, state, and federal government offer opportunities at various levels of ability for the activities of honest and courageous men.

To Make These Fields Satisfying and Desired by Those Gifted for Successful Achievement. If each successive adventure in a proposed higher activity in the major fields is to prove satisfying, the first requirement is that the initial experience of the individual therein shall be felt by him to be successful. The entrance doors should bear the legend, *All hope persist in ye who enter here.* A chill blast in the face of students passing the portal of a new and higher activity has sometimes conditioned them against success in a field which they entered with enthusiasm. In order to make initial experiences satisfying, much more time than is usually taken should be spent in so planning them that students shall have both some immediate sense of accomplishment and progress, and a strong desire to go further.

It is not, however, to be understood that by the words "to make the major fields of the racial heritage satisfying and desired" is meant that the function of the teacher is merely to "make the work interesting". The teacher's function is not to prink and bedeck material to be taught. It is not their flounces and furbelows that make higher activities desirable, but the fascination of the problems they present in the intellectual satisfactions which come from solving them. This phase of Special Function III demands of the teacher not showmanship but the revelation which can come only from his own experiences. The teacher's relation to the student is the relation of Prudence and Charity to Christian.

Said they, we will, if the day be clear, shew you the Delectable Mountains, which, they said, would yet further add to his comfort, because they were nearer the desired haven than the place where at present he was: so he consented and stayed. When the morning was up, they had him to the top of the house, and bid him look south: so he did; and behold, at a great distance, he saw a most pleasant mountainous country, beautified with woods, vineyards, fruits of all sorts, flowers also, with springs and fountains, very delectable to behold. Then he asked the name of the country. They said it was Immanuel's Land. . . . Now he bethought himself of setting forward, and they were willing he should. But first, said they, let us go into the armoury. So they did: and when they came there,

they harnessed him from head to foot with what was of proof. . . . He being, therefore, thus accoutred, walketh out with his friends to the gate.⁷

Nor is it to be understood by the words "by those naturally gifted for successful achievement" that we are equipped either with teachers so wise or with tools so delicate that individuals destined for successful achievement can be identified with certainty in their childhood. The educational history of many rich contributors to the racial heritage of culture warns against such an assumption. None the less the grounds for wise judgments in these cases are constantly becoming more solid, as the previous exploration of the student becomes more thorough, its results more methodically recorded, and tools of measurement more reliable.

"The success of higher education is to be measured by the number, the variety, and the depth of the interests it has aroused." Hence the high school can seek a measure of its success in the performance of this function in the proportionate number of its graduates interested in an individual, self-motivated, active, continuation of the processes of education set in motion by the school. The application of this criterion reveals most vividly the failure of secondary education as a national investment. It is unnecessary to enter here into any treatment of the nature and development of interests, and their central importance in the processes of education.⁸ Further higher activities in education will appear desirable to the individual in the proportion as previous activities have aroused his active interest. The reader may find elsewhere discussion of the causes of interests, and the means of discovering, directing, and strengthening them.

To Give Information as to Requirements for Success, and as to Further Training. This element of Special Function III is fully discussed in that portion of Special Function VII which treats of the guidance of pupils "into advanced study or vocations in which they are most likely to be successful." Part of the guidance function is clearly to see that the task contemplated is not entirely beyond the ability and power of the planner. Studies of student success and failure in the professional schools have yielded material of great value to secondary-

⁷Bunyan's *Pilgrim's Progress*.

⁸See Special Function VI.

school teachers who are concerned that their revelation of activities possible to their students shall be qualified by a due recognition of the elements which condition success therein. As part of their equipment to discharge this part of the function, school libraries should possess books on vocations and professions, and specific qualifications needed for each, and catalogs of training schools, colleges, and institutions for technical education. Better than giving information to students is giving them the ability to find it for themselves, to develop in them the knowledge and technical skill to find, use, and organize information that school and community libraries afford.

Among the elements which determine success is the possibility of happiness and permanent satisfaction in the kind of life involved by the choice of an occupation or profession. The students of interests which characterizes persons who have achieved success in various occupations and professions have resulted in vocational interest blanks which have been found valuable in the guidance of many students at the level of the junior college, and even of the senior high school.

IV. Conditions Necessary If Secondary Education Is to Discharge This Function

The function of secondary education described in the words at the head of this chapter is one which the competent teacher of vision, enthusiasm, and character will perform in the ordinary execution of his vocation in spite of every handicap in his path. For the interest he finds in the development of his pupils and the ambition he cherishes for each of them will cause him to associate the activities jointly engaged in with outcomes remote as well as immediate. The relation of these activities to the good life both of the individual and of society is never out of his consciousness. Further, his own enthusiasm for that field of the racial heritage which he has chosen to cultivate is the surest guarantee that it will appear rich and hospitable to his pupils, and that he will possess the information necessary to guide his pupils in the directions of brightest promise for their future training. Being a person of liberal education himself, he will manifest in his own life those numerous, varied, and deep interests which most surely characterize the man of liberal education.

It is only when public secondary education is served by men and women who approximate in their own lives the qualities sought for in students through the exercise of this function, that it is reasonable to expect secondary education to discharge it to any appreciable degree. Teachers cannot reveal satisfactions in higher intellectual activities unless they have felt them; they cannot reveal the values of such activities for social living unless their own lives are examples of such applied values; they cannot induce good character unless they are examples of good character; they cannot excite interests in students without possessing interests themselves. Interests originate from contagion rather than from description, presentations, and understandings. There are few educated Englishmen without interests because there are few English teachers without interests; and there are few secondary-school teachers in France or Germany who have lost faith in what they teach, because secondary-school teachers in France and Germany are masters in their fields, and have experienced for themselves the higher satisfactions possible in them.

The first condition, therefore, if secondary education is to discharge this function, is that the institutions of secondary education shall be staffed by men and women of character, who are thorough masters of the fields they assume to teach, and who show the results of a liberal education in the number, variety, and depth of their interests.

The second condition involves a change of emphasis in the aims of secondary education: a change which is in part implicit in the treatment of Issues IV and VIII, and in the discussions of those special functions of secondary education which deal with individual differences and the development of individual interests.⁹ This change of emphasis concerns both theory and practice. The sequences in secondary education have been regarded as steps cut out or laid down by some super-architect of youth's progress, and the process of education as the progress of the learner from step to step through the stimulus of a thistle in front or a stick behind. But investigation of what happens in this ascent of youth reveals the fact that in case after case it is the staircase, not the climber, that has been in motion; that the college graduate ostensibly perched upon the sixteenth grade is still at rest upon the eighth, having

⁹See Function IX and Function VI.

been raised to that eminence by the *deus ex machina*, not without dust and rumblings.¹⁰

In other words when we regard secondary education as a series of steps to be trodden on and abandoned, we are inclined to omit the present function from consideration. The concept of differentiated needs makes the figure of fixed steps inappropriate. What this function emphasizes is the motivating power of wider horizons and richer landscapes to be obtained from higher vantage ground reached by a multitude of different paths, each affording to the youth who treads it splendid visions to attend his progress.

In regard to present practice, teachers in service are aware how far it lags behind the ideal. If the ideal is to be approximated, curricula must be examined for their probable values as revealers of higher activities in the major fields, and their effect evaluated in terms of the eagerness of students to continue similar studies at higher and more differentiated levels.

V. What Can Be Done Under Present Conditions

The rest of this chapter will consider what secondary education can do under present conditions, with the present subject-matter, curricula and the present teachers, more adequately to perform the function under consideration.

The typical American secondary school is a four-year school, conventionally organized, enrolling in 1930 about 100 pupils, conscious of the needs for curriculum revision, but tending to maintain the traditional subject-matter material of instruction. More than half of the high schools of the United States have an enrollment of one hundred pupils or less; almost all schools enrolling fewer than 150 pupils are in rural centers; a large proportion of the educables in these rural areas were until recently not reached by the high schools.¹¹

1. Secondary schools cannot reveal higher activities of an increasingly differentiated type in the major fields unless they

¹⁰See for example, the various Progress Reports of the Study of the Relations of Secondary and Higher Education in Pennsylvania issued by the Carnegie Foundation.

¹¹W. H. Gaumnitz: "The Place of the Small School in American Secondary Education," Chap. II, Part I, of *Economical Enrichment of the Small Secondary-School Curriculum*. Bulletin of the Department of Rural Education, Washington: National Education Association, February, 1934.

can provide activities of sufficient diversity to meet the needs of students. The reorganization of high schools is one means of providing a wider range of differentiated activities. Small secondary schools may be reorganized either by enriching total offerings by the alternation of classes in four-year high schools, or by enlarging the four-year into a six-year high school. Definite programs and time schedules for both types of enrichment are available, on the basis of a four-year high school of 60 pupils with three teachers, and a six-year high school with five teachers.¹² The foregoing is based upon the fact that under present conditions the small secondary school is handicapped in the performance of Function III because of the poverty of its offerings and the lack of articulation with the eighth grade.

2. Local conditions affecting small secondary schools may prohibit reorganization and may yet permit of the enlistment of agencies outside the school calculated to increase its effectiveness in the performance of the function here considered. Among these possibilities are the employment of circuit and part-time teachers, whose usefulness especially in sparsely settled districts is attested by the experience of Australia and Canada. Correspondence courses aided by coöperative supervision in the school have been used with good effect in the state of Nebraska and elsewhere. In certain communities—in Denver, Colorado and in the village of Carmel, New York, for instance—artists, doctors, craftsmen, storekeepers, social workers, and district nurses have coöperated in the development of special aptitudes and talents in high-school students. Local conditions may make it possible for the school to use subject specialists on the extension staff of the state university. It may be that in some schools, pending the more complete competence of local teachers, Special Function III may best be accomplished by a division of labor horizontal rather than vertical in subject-matter fields, with the consequent freeing of the local teacher from excessive burdens of subject preparation.¹³

3. Revelation of higher activities of an increasingly dif-

¹²F. T. Spaulding: "Reorganizing the School", Chap. XVI, Part III, *Economical Enrichment of the Small Secondary-School Curricula*, Bulletin of the Department of Rural Education, Washington: National Education Association, February, 1934.

¹³F. W. Cyr: "Conclusion", Chap. XX, *Economical Enrichment of the Small Secondary-School Curriculum*: Bulletin of the Department of Rural Education, Washington: National Education Association, 1934.

ferentiated type can be effective only when it is made in terms of the capacities of the learner. Articulation which provides all pertinent information of a student's abilities and interests is necessary if "those naturally gifted" are to choose wisely among possibilities open to them. The senior high school must know all that has been discovered about the capacities and aptitudes of entering junior high-school students, and must be able in turn to pass on similar information to the junior college or to the college of liberal arts. For this purpose permanent comprehensive record cards and individual folders are necessary.

4. In whatever categories the senior high school describes the major fields of the racial heritage of experience and culture, provision must be made in them for discovering and developing higher activities of a more differentiated type. This entails provision for activities in many fields such as mathematics, English, and the sciences, for accomplishment beyond what is at present usual. It entails the use of the community as a laboratory, and the development in students of knowledge of the sources of material and the techniques of using them.

5. It is amazing that adolescents are invited to study all the various sciences and arts except the art which they are all practicing, education. This conspiracy of silence and secrecy of educators towards educatees is incomprehensible. It has been found by a number of schools now engaged in an experimental study of the secondary curriculum,—a study which emphasizes the very function here considered,—that students experience grave difficulty in associating the racial heritage of culture with anything outside of the traditional curriculum of subject studies. Introduced to a curriculum organized on the basis of the major fields of the racial heritage of culture they are inclined to ask, "When are we going to study mediaeval history?" "When shall we begin to read Cicero?" So fixed a foot has custom planted in the attitudes of youth as they enter the senior high school. Secondary schools should organize a unit of learning in the nature and meaning of education, designed to reveal to boys and girls the function of schools against the background of life-long individual development. Adolescents who spend their days in learning ought to know what learning is and how it takes place; the conditions of maximal learning and forgetting; the importance of motivation; the sat-

isfaction of learning to the individual and its value to society; the vast range of activities to which it holds the key; the continuousness of the process and the means of making learning co-terminous with life.

6. In the case of many high-school students revelation of possible higher activities in the major fields will indicate the desirability of continuing education in the junior college. Hence the advantages of the junior college should be made more available. The eighteen-fold multiplication of junior colleges in twelve years, their continued increase during the years of the depression,¹⁴ the high percentage of wastage in the four-year colleges, and the fact that many of the latter are now in fact performing badly what it is possible for junior colleges to perform well, indicate the need of more institutions whose purpose is terminal secondary education. Evidence from the C. C. C. camps clearly points to the need of free, public, two-year junior-college instruction for the care of those whose achievements and interests indicate that formal schooling should end with secondary education. The function of the two-year junior college which is terminal and may serve as an introduction to the semi-professions should be accentuated. It should not be minimized or neutralized by academic activities imposed in preparation for the next academic level. The function most frequently mentioned in junior-college catalogs is preparation for college or university. While the federal census figures indicate that less than ten per cent of the population is required for the professions, the study of Bennett estimates that, in 1928, 200,000 persons were annually required in the semi-professions connected with agriculture, commerce, and industry, and in the recognized professions themselves, and that untrained, and in many cases unqualified persons were entering upon these careers. The public, two-year, junior college is the natural completion unit of secondary education; it articulates with all but three of the main types of high school, and it is the natural institution to discharge the function emphasized by Bennett.¹⁵

7. To make better teachers is more important and more

¹⁴W. C. Eells: *The Junior College*, Boston: Houghton, Mifflin, 1931. See also by the same author: "Status of the Junior College in the United States, 1933-34," *School and Society*, XXXIX:996, pp. 126-128 (January 27, 1934).

¹⁵W. C. Eells: *The Junior College*, pp. 287 ff. Boston: Houghton, Mifflin Co., 1931.

economical in the long run than to make better curricula. How can teachers of American secondary schools now in service be induced to see more clearly the greatness of their task, and to attack it with more competence, vision, and enthusiasm?

The laws of learning would appear to provide the answer: enlist teachers in service in active, coöperative work to study what ought to be done and to devise the means of doing it. One of the most hopeful signs in secondary education is the number of such coöperative efforts which have been organized by able and enthusiastic leaders during the past few years. In Virginia, for instance, every teacher in the state was invited to study what the school curricula should be, and 15,000 out of 17,000 enlisted in the work voluntarily. The second year was devoted to assembling material to meet the needs revealed. Thus the teachers of an entire state were engaged in a coöperative project for self-improvement under favorable teacher-training conditions; for they were continuously comparing traditional practice with the theory and the objectives they themselves had arrived at through study and discussion, noting discrepancies and recording preferable practices. The effect of this state-wide experiment in coöperation naturally has been found to be cumulative, leading on in turn to supervision of the new curricula, changed teacher training, the reorganization of teacher colleges, and the inauguration of a state-wide system of teaching apprenticeships.¹⁶

8. Institutions of teacher training must set themselves the task of producing teachers qualified by their character, ability, and enthusiasm to put the new program into execution. The necessary reformation of teacher colleges will come most speedily when teachers in service feel the need of that reform. Perhaps the most effective means for bringing it about is through such wide coöperative studies as the one just referred to.

9. The proper emphasis upon this function will come the more speedily when the minds of administrators and teachers in practice are keenly sensitized to its importance, and when, through them, it becomes popularized with boards of education and with parents.

JOHN A. LESTER.

¹⁶S. B. Hall: "Coöperation in Virginia". *The Educational Record*. July, 1933: The American Council on Education, Washington, D. C.

FUNCTION IV

"To explore higher and increasingly specialized interests, aptitudes, and capacities of students, looking toward the direction of them into avenues of study and of work for which they have manifested peculiar fitness."

INTRODUCTORY SUMMARY

People generally agree that the individual finds his greatest happiness in placing at the disposal of his fellow men the services which by nature and nurture he is most fitted to perform. To render such services ought to be among the supreme purposes of the individual in life. It is a purpose to which education can be profitably directed and on which the energies of the school can be well spent. Indeed, if secondary schools are to yield the largest possible return from society's investment in public education, they must assume as one of their principal functions the task of helping each pupil to find a place in the world where he can use his energy and talents with profit to society and to himself.

This function of the secondary school is manifestly of the greatest importance. Equally manifest is the general way in which it can be intelligently performed. The secondary school must explore and develop the basic equipment of the individual in terms of his interests, aptitudes, and capacities to attain to and participate successfully in the higher activities which education and other forms of experience reveal.

Why exploration in terms of a pupil's interests? Largely because interests are the dynamics of education. They determine the kind and quality of the things which an individual does. They not only support learning; they perpetuate it. Their very indispensability forbids their neglect. Fortunately interests are not hard to arouse. The natural curiosity of children provides an ample base for developing them. In truth most children come to school with many interests already formed. It is the task of the school in conjunction with the pupil to discover these interests, to develop others, and to press

any and all of them into the service of the higher activities of life.

A pupil's aptitudes and capacities are no less important than his interests. As a matter of fact, aptitudes are closely related to interests and to the integration of personality. We are usually interested in what we do successfully, and successful activity is the basis on which we integrate a healthy personality. But the activity must be successful. Schools as a whole are too much concerned with bookish activities, whereas many pupils are not academic in their aptitudes. Since aptitudes non-academic in nature are so common, they must be given a fair chance to develop and to help the individual adjust himself to life. Capacity, on the other hand, refers to the native endowment of the pupil. Perhaps this cannot be intrinsically improved, but it can be freed from inhibitions and by supplementing intelligence tests with achievement tests, teacher judgments, and exploratory courses, it can be more justly estimated.

As a part of the task of securing the wisest distribution of human talent in the higher activities of life and of guiding the pupil accordingly, the secondary school should be able to tell a pupil and his parents the essential facts about his interests, aptitudes, and capacities. But the school will never be able to give this information unless it develops and puts to good use adequate techniques for the purpose. Reorganization in administration, in the curriculum, and in the functions of teachers will undoubtedly be necessary. The school ought, for example, to devise for use early in a pupil's educational career a limited number of exploratory courses in the major fields of the curriculum. If these courses are weighted with immediate rather than deferred values, their brevity will not preclude substantial benefits to the pupil and they may prove of the greatest service in planning his subsequent program. It is also an essential part of good exploratory techniques to establish a continuous contact between the pupil and some one teacher. It is now recognized that to fully understand the pupil, the teacher must view him in all his relationships, continuously and as a whole. And finally it will be necessary to enlist the coöperation of both the pupil and his parents, for they are precisely the ones on whom the success of the teacher in understanding and helping the pupil ultimately depends.

In the last analysis the pupil develops himself, but he does it under the conditions set by the school and the home.

Objections are sometimes raised to the function of exploration because of its alleged costs and its tendency towards over-specialization. But neither argument is conclusive. It is economical to spend a little money to prevent great wastes. The most important costs to consider are the random efforts, the purposeless lives, and the demoralizing driftings of individuals when the function is neglected. The charge of over-specialization, on the other hand, is based upon a misinterpretation of the function. If the function is clearly understood and properly performed, it reveals inadequacies in areas of common knowledge, while determining abilities in special fields.

More disturbing than theoretical objections are the practical difficulties in carrying out the function. But these will gradually yield to effort just as the objections will yield to reason. The problem of differentiating the program of small schools, for example, may be effectively attacked by reorganizing them into larger units, by employing more versatile teachers, and by capitalizing on the opportunity in small schools to establish a more intimate contact between teachers and pupils. Other suggestions for overcoming the rigidity of the curriculum, the over-zealousness of department staffs, the faulty training and selection of teachers, the inadequacy of techniques of evaluation, and the paucity of provisions for personnel work are given in the discussion which follows. The only sine qua non to the solution of these problems is an honest recognition of their presence and a readiness on the part of all educators to work together in incorporating the function into the work of the secondary school.

I. The Nature of the Function

Every normal individual hopes to find a place in the world where he can use his energy and intelligence with profit to himself and to society. Happy indeed, is the person who by reason of peculiar gifts, or through fortuitous circumstances, finds his place early in life and has a lifetime of satisfying activity. All individuals in our society are not so fortunate. While a few find an outlet early for their energies and am-

bitions, a larger number hit upon it by chance relatively late in life, and some are doomed to a lifetime of random drifting. The public secondary school, if it is to realize the largest return from society's investment in public education, must assume as one of its obligations the task of helping the pupils to find their place in the scheme. Most educators are agreed upon the place and importance of guidance in secondary education, but the elements which precede guidance are not so clearly understood. Before guidance can be adequately administered, provision must be made for the revelation of the social heritage as set forth in Function III and for the exploration of the interests, aptitudes, and capacities of the individual.

The exploratory function is concerned with the basic equipment of the individual in terms of his interests, aptitudes, and capacities to attain the goals set up by the third function. Revelation of the possibilities in the various fields of human endeavor are relatively futile, unless we make at the same time a systematic effort to explore the individual's possibilities for attainment. It is conceivable that revelation and consequent stimulation of ambition and desire may be positively harmful unless the individual possesses the necessary ability to realize the goals desired. Revelation of the heritage and exploration of the individual are functions that are carried on together and supplement each other, and only in terms of both functions can guidance be effectively offered.

Meaning of the Function in Respect of the Interests of the Individual. Interest is placed first in the exploratory function because of its importance both in school and in life out of school. It is interest that determines whether a person will seek further information about a subject or activity while in school, and later pursue it when he is freed from compulsion. The effectiveness of education, in terms of the lasting changes that are made in the individual, can be gauged by the intensity of the interest that school arouses in the individual. Pupils daily are compelled to carry out tasks, in which they have no real or vital interest, simply because they are told to do so. Lacking an interest in the subject, except for the credit involved, or any clear and definite purpose for doing the work assigned, the results are disappointing to parents, teachers, and pupils. Even when the mark for the course is one of reasonable respectability, it is doubtful if there are any lasting

results that change the individual and cause him to respond differently, unless an interest in the process has been aroused.

Outside of school it is interest which determines the kind and quality of our leisure pursuits with their varied concomitant effects upon personality and character. The dynamic quality, that is an integral part of genuine interest, must be regarded as an important factor in every phase of character education, particularly in relation to leisure activities. Interest that leads on to types of activity on to an increasingly higher intellectual and cultural level should be fostered and encouraged in every way. Because of the importance of this aspect of interest it is impossible to overemphasize the importance of teachers exploring the interests of pupils and revealing to them the leisure-time aspects of their field of activity. The leisure time aspects of school life are too frequently interpreted only in the field of physical education or handicraft. Important as these are there is probably greater opportunity to discover and develop interests in the academic phases of school activity. Science, literature, mathematics, and the social studies offer opportunities in leisure activities that have been completely ignored by a multitude of teachers. Subject matter of the academic courses has been regarded as dry and uninteresting to pupils because the teacher was satisfied to teach the course content wholly unrelated to the leisure aspects or to a dominant vocational interest of the pupil. If teachers were adequately informed on the work of the world, if they had a wealth of illustrative material of the use of the subject matter in out-of-school situations and if they systematically informed pupils of the purpose of the material they would discover that the subject matter was no longer regarded as dry and uninteresting because it would be tied up with a dominant interest of pupils.

The reason for this seems to be clear. Dewey long ago pointed out the importance of interest in the educative process. "Interest is the *active*. We *take* interest. To be interested in any matter is to be actively concerned with it. Second, it is *objective*. Interest does not end in itself, but is embodied in an object of regard. Third, interest is *personal*; it signifies a direct concern; a recognition of something at stake, something whose outcome is important for the individual."¹

¹John Dewey: *Interest and Effort*. Pages 16-17. Boston: Houghton, Mifflin Co., 1913.

When work, either within or without the school, lacks these three elements of being active, objective, and personal, attainment is likely to be ephemeral or sterile.

Since interests are of such vital importance to success in school and to success in life, it is essential that we consider carefully first how interests arise and, second, what is to be done with them.

Interests are not spontaneous in the sense that they are created out of nothing. They usually appear when the individual has been exposed to something that arouses his curiosity, and when the process of satisfying this curiosity is both inviting and satisfying. Interests are aroused in numberless ways—by accident, by chance, or by the deliberate effort of the teacher. Too often for our satisfaction, they are aroused by the first two methods. Many teachers regard their whole duty in terms of pupils' learning and reciting the material of the assignment. Mastery of assigned work is important and no one wishes to minimize it, but it is the unusual teacher who counts success in terms of arousing deep and abiding interests in and through his field of subject matter.

Interest is born of experience. A lack of interest would indicate a lack of experience, in so far as normal individuals are concerned. Experiences must be provided that will produce the readiness to understand, to grasp the significance of a situation and produce the disposition to act with reference to the situation. These preliminary experiences are valuable in themselves but their major purpose is to tap the inner resources of mental activity and furnish the desire that is necessary to learning. Wise teachers who have carefully planned these preliminary experiences that, if successful, provide the readiness and mental receptivity find their reward in the quality of learning that follows. Such procedure really simplifies teaching rather than increases its complexity. The reason for this is obvious. Where these preliminary experiences have provided interest in the activity learning is more definite and purposeful.

It is not always necessary to provide preliminary experiences preparatory to a learning situation. The natural curiosity of children that is so abundant in early childhood provides the adroit teacher with ample opportunity for directing and

managing emerging interests. Curiosity is not to be confused with interest, but it may become the preparatory material out of which interest may grow and develop. Too often this early curiosity is discouraged in school so that by the time the secondary school is reached there seems to be none left. There is plenty of out-of-school curiosity and young adolescents are constantly in difficulty because of attempts to satisfy their natural curiosity in a world as interesting as ours. Teachers who fail either to set up situations that deliberately bid for curiosity, or who fail to use the natural curiosity that may be experienced by pupils are losing a real teaching opportunity.

Interests are also infectious. If a teacher has a profound interest in the field in which he is working or a hobby allied to it, it is not unusual to find pupils discovering that they have similar interests. After such a happy discovery it frequently happens that pupils and teachers extend their interests beyond the class room activity to extra-curriculum, where a club is provided to give expression to this interest. Such a development is of real significance both to the individual and the school. This community of interest grows out of the curriculum into the extra-curriculum and returns to the curriculum to enrich and vitalize it.

Numerous illustrations of the infectious quality of interest will occur to the thoughtful teacher and administrator. Both have seen during their years of experience many examples of the growth and development of an absorbing interest transmitted to boys and girls by the enthusiasm of a teacher. The point that has not been noted particularly nor studied adequately is the fact that a personality that we call rich, vital, dynamic, and engaging is such, because of the interests that such a personality possesses. Having these interests and the resultant personality, such an individual is able to transmit the enthusiasm to youth. Administrators would do well, in the selection of teachers, to look not only to academic preparation but also to personality and the residual interests that compose it.

With interests of such importance the question naturally arises, "What is to be done with them when they appear?" And the answer is—respect and use them. They are both means and ends. Means as a vehicle for carrying forward an intellectual process; ends both in themselves and in terms of

class activity. Many times the interests manifested by pupils will be outside the range of a teacher's interest or likes. Sometimes they may be wholly distasteful to the teacher. The answer remains the same—respect and use them. The importance of the dynamic, objective, and personal factors in interest cannot be overemphasized. They constitute the major elements of readiness, set and drive, which are of fundamental importance in the learning process.

Many times pupils are asked, "What are you interested in?" The question may be evaded or answered superficially. Usually the pupil does not know what he is interested in. He has had but little opportunity to know what his interests may be. He needs an opportunity to try out a lot of experiences in a variety of fields of activity. He needs to explore the possibilities in all possible fields and he needs to be explored himself. The secondary school has a definite obligation in this exploratory process.

Meaning of the Function in Respect of the Aptitudes of the Individual. Aptitudes are placed second in the list because of their close relationship to interests and because of their importance in the integration of personality. Like interests, they are highly individual and as difficult to be accounted for. Their intimate relationship to interests lies in the fact that we tend to be interested in the thing that we can do successfully, and we do successfully the thing that we are interested in. An aptitude may be defined as a potential ability to develop skill along a certain line. One person has an aptitude for fine and delicate work, another for the intricacies of higher mathematics, a third for the manipulation of mechanical devices, a fourth for playing musical instruments. Every normal person has something that he likes to do and can do well. Many times aptitudes are of particular social significance and they may be definitely anti-social; it depends upon the ultimate direction and use. It is difficult to think of any aptitude, which taken in time and properly directed, cannot be converted into something useful to society. It is one's aptitudes that make him a potentially valuable member of society. We employ people to do things for us who can do them well. We want dentists to do our work who have an aptitude for such work; we consult lawyers who can give us sound counsel; we buy a ticket to a concert by an individual

who has an unusual aptitude for playing the violin; we employ a man who has an aptitude for mechanics to work on our car.

The exploratory function with reference to aptitudes calls attention to the fact that the school has in the past identified its concern too much with bookish activity. The secondary school is now concerned with all normal adolescents. Many of these pupils do not have aptitudes of the higher intellectual types, but they do possess aptitudes that are valuable to society. They possess potential abilities along manipulative lines, manual activities, managing people, organizing enterprises, entertainment, etc. All of these are valuable and necessary in the highly complex civilization in which we live. It is the duty of the school to explore the individual's aptitudes in these various fields of activity and then to reveal the possibility for his successful adjustment in life through the utilization of these aptitudes. The extra-curriculum offers opportunities in this direction that must not be overlooked. This is illustrated by instances of boys who found the academic work of the school almost beyond them but who have been successful as managers of teams, stage managers and property men in dramatics, business assistants on the school papers, and similar enterprises. All of these offer possibilities for successful and happy adjustments in adult life that are made possible through proper attention to the exploratory function.

One of the principles upon which sound mental health is built is that the person must be engaged in an activity that he regards as important and with which he can be successful and happy. The results of such therapy are that conflicts are resolved and personality is unified. If, on the other hand, he is engaged in an activity for which he has no particular aptitude, little success, and dwindling interest, there is built up within him a sense of failure, of frustration, and defeat. Out of these grow emotional disturbances and disintegrated personality. In terms of mental hygiene alone, the secondary school has a distinct obligation to assist boys and girls to find themselves.

Meaning of the Function in Respect of the Capacity of the Individual. The term capacity, as used in this function, has reference primarily to the mental endowment of pupils or the ability they possess of receiving and holding ideas, reasoning and working with abstract material and symbols. The in-

telligence test is probably the best single instrument we have for ascertaining the general level of intelligence. These tests have limitations and during the years of use we have had to revise some opinions concerning them. The tests are affected by skill that can be conditioned and improved. If a pupil has a reading disability, it will greatly affect his score on an intelligence test. When the disability is removed his score is immediately improved. Vocabulary difficulties also are subject to diagnosis and treatment. But for all general purposes the basic theory of the tests is still sound. Intelligence tests remain the best rapid and most accurate measures of the general level of intelligence. But the intelligence tests are not enough for determining the capacities of pupils. Neither parents nor pupils are willing to submit to the final decision of an intelligence score. Our tradition of equal opportunity requires (rightly or wrongly) that we give all children a chance in any field in which they or their parents feel they might be successful or in which there is reasonable expectation of success. Hence we must supplement the general intelligence tests with achievement tests of various kinds, with teacher judgments, and with courses that will explore to the satisfaction of the pupil, the parents, and the school what he can do and what he cannot do.

II. Implications of the Function for Secondary Schools

It would be erroneous to assume that this function is altogether new in educational theory. The secondary school, both here and in Europe, has been engaged in exploratory work for a long time, but the exploration has been of a negative character and even this exploration was not of a deliberate type. The school discovered with considerable accuracy what a pupil could not do—only rarely did it attempt to find out what a pupil could do, with profit to society and success to himself. If the school is to realize the largest dividend on the state's investment in education, it must adopt a new and different policy.² The new task is clearly defined in the statement

²See Committee on the Reorientation of Secondary Education: *Issues of Secondary Education*, Chicago: Department of Secondary-School Principals of the National Education Association, Bulletin No. 59 (January, 1936).

of Function IV. Exploration must be carried out definitely and positively. Secondary education owes it to itself, the pupils, and the state to be able to tell pupils and patrons with a reasonable degree of accuracy what exploration has revealed of a pupil's interests, aptitudes, and capacities.

If this function is valid it follows that a reorganization of the school, the curriculum, and the teacher's functions must be effected. Courses of study and pupil activities and experiences in the lower division of the secondary school (the junior high school) must assume the exploratory function as a major purpose. A definite effort must be made on the junior high school level to give pupils a wide understanding and knowledge of human experiences and to determine what they can do, as well as what they cannot do. The courses of study must be so organized that they are constantly of maximum worth. The emphasis must be on immediate values rather than on deferred values, as they tend to be at present. The reason for this is clear. If a pupil has attempted a semester (or less) of a course, and it is determined that it will not be profitable for him to continue longer in work of that type—he has in the period of attending the class received instruction that is of immediate value to him. By immediate value we mean that it has added to his stock of ideas, information, appreciation, or skill.³ In the past courses have been organized so that values were remote and deferred. The subject matter of the course was valuable, but only after working in the field for two or more years. Even then, as courses have been organized (and are still in a distressing majority of cases) the subject matter was not related to the life of the student, and was of small value in aiding his adjustment to present day environment. Values were conceived largely in terms of a discredited psychology of discipline and transfer, and vague ideas of culture.

Evidences of these facts are found in the language courses, both ancient and modern. Language is an instrument for conveying ideas. Students of a foreign language, either ancient or modern, should be expected to have a better and clearer idea of the culture, life, and interests of the people whose language they were studying than pupils who had no

³See Function II for an extended discussion of values for use in making a better and happier adjustment to life now and in the future.

such contact. But this was not altogether true. The course was so concerned with construction, mutilated bits of literature, and practice in puerile composition, that there was no time for the history, geography, social, economic, and cultural life of the people. Values of this sort came only after long years of drudgery—and too often were not very abundant then. Exploratory courses will reverse such procedure. Emphasis in language courses of a truly exploratory type will be so placed that a pupil will leave the course, not only with an idea of the intricacies and difficulties of the language, but also with a fairly clear idea of the life of the people who produced the language and used it in daily living. It can be determined with a fair degree of reliability in a course organized in this manner whether a student can successfully continue in a language course reasonably early in the junior high school. If he should not go on, it will become increasingly clear to the pupil and his parents. But the time spent in the course has not been wasted. He has received information and knowledge in the course that is not supplied elsewhere and is of value to him.

The same thing may be said and applied to the other courses of the secondary school—particularly in the junior high school. Science courses must be treated in this same manner. The goals of such a course are to orient the pupil in a world made over by science; aid his adjustment to life through science; and determine his aptitude and capacity for work in the higher reaches of the subject. Probably the most fruitful efforts toward the realization of Function IV have been attained in the field of general science in the junior high school. Workers in this field have made notable progress, and point the way for workers in the other subject fields. Yet with all the progress that has been made in general science, the results that are obtained are far short of the goal we seek.

The reason for this, in our judgment, is not the failure to reorganize materials of general science and make it functional, but rather to the attitude of the teacher, administrator, and the public toward the whole problem of secondary education and criteria of success in school. Results of the course are judged almost wholly in terms of subject matter learned, rather than in terms of exploring the pupils' interests, aptitudes, and capacities. If exploration is to be attempted seri-

ously, it must be done in terms of individual pupils. It is manifestly absurd to think that teachers can study individual pupils in classes of the size that now prevail. One hundred fifty pupils per day is now regarded as a normal load. In many schools the normal load is nearer two hundred. If the individual pupil is to be studied for exploratory purposes, it can be done only in smaller classes. Careful records of individual progress must be kept and intelligently interpreted. Such a record can be compiled only through the intimate contact with a pupil that is possible in smaller classes.

Class size is not the only impediment to the exploration of the individual. Conventional school organization, on all levels of secondary education, limits a teacher's contact with a pupil to one hour per day for one semester. At the end of that period the pupil is shifted to another teacher. Under such organization it is impossible for a teacher to study the pupil, even in a superficial way for exploratory purposes. This situation has grown out of a conception of education as a process of pouring in knowledge on a departmentalized basis. Such a conception of education regards information or skills as ends in themselves, without reference to the individual's capacity or the value of the teaching material in society. To explore adequately an individual pupil, the teacher must study him under a variety of conditions and have him for a sufficient time to evaluate his reactions. This means that most junior high schools in their zest to provide better teaching have over-departmentalized the school. Teaching of specific subjects has been improved. The gains made in this direction, however, have been offset by proportional losses on the side of exploring the individual. It is absurd to think that pupils in the junior high school can be explored, or that they can explore the offering of the school, when they have from six to nine different teachers a week. The problem is further complicated by the zeal of each teacher to teach specialized and unrelated bits of subject matter.

No place in the secondary school better exemplified this fallacious idea than in the so-called Broadening and Finding Courses which were popular a few years ago. Their influence has not been entirely eliminated but the depression has compelled an elimination of some of the most palpable absurdities.

In these courses a pupil was assigned to a course for a period of six weeks or less; at the end of that time has was reassigned to another teacher and another course. The theory back of this arrangement was to acquaint pupils with a large variety of experiences in the field of manual arts. This is a perfectly sound idea—but the method of accomplishing this purpose was fundamentally unsound and the net result was that there was very little exploration of the manual arts—and practically none of the individual. Basic skills in the manual arts are not so disparate that try-out courses in eight to sixteen different fields are necessary. Even if this were true, it would be impossible for anything approaching adequate study of the individual's interests, aptitudes, and capacities in the period assigned.

The exploratory function cannot be confined to class work alone. The reorganization of subject matter and differentiated curricula is essential, but exploration must go further and deeper than this. After all, the life of children is not limited to the four walls of the school building nor are their interests and activities confined to the school environment. Intelligent and effective exploration must go beyond this into the out-of-school activities of children. It would include inventories of activities of pupils during the summer vacation and other holidays; the hobbies they pursue, the after school employment with a record of achievement; the reading they do in both books and magazines during their free time; the type of entertainment they seek (including of course the movies they like best); their extra-curriculum activities, excursions, making of models, and their participation in the extra-curricular program of the school.

Another fruitful source of material for exploring the individual is to be found in the free writing that is done. This type of writing is not done for credit nor to meet an assignment—but rather to express ideas, attitudes, ambitions, and desires. It has been found in many instances to be the key to personality disturbances and conflicts that were causing many of the vexing problems in school. Evidence has been offered of the clarification of a school situation involving maladjustment and failure through the sympathetic and intelligent examination of the free writing of children.

Adequate exploration of pupils must include evidence of the pupils' ability to get along with other people. Personnel workers in schools maintain that one of the chief causes of adolescent disturbances is found in the conflict between parents and children. This conflict occurs outside the school, but the effects of the disagreements are registered in the work done at school. The relations of people to each other is important. Pupils who have not learned to get along with members of their family, their colleagues in school, and the people encountered in the business world are in need of some specific assistance from the school. Some instruction of this nature can be and is offered in many different courses in the school, but it is of a very generalized nature. In many cases such instruction must be made definitely applicable to individual problems. The whole situation must be carefully analyzed by a counselor or a visiting teacher, and the correction of the difficulty outlined for both home and school. Such procedure calls for a high type of skill, patience, and imagination.

We have been emphasizing the importance of individualizing instruction and careful personnel work. Most thoughtful people engaged in school work are agreed upon these points. They recognize the obligation of the school to explore the individual and help him find his place in society. But many of them overlook the place of the individual pupil in this procedure, and the part that he should play in the process. The active interest and coöperation of the pupil must be enlisted and secured if the exploratory function of the school is to be realized. In the last analysis the responsibility for getting an education rests upon the individual. He must want to grow and to mature. The school will set up goals of maturity, but the individual must want to attain these goals, appreciate the desirability of attainment, and work with the school to reach them. Pupils will not, of course, regard themselves as "problems" in any sense—but if they have some personality defect, mental disturbance, or anything else that is interfering in their progress toward maturity and integration of personality and character, they must be made to face the problem frankly. This is probably the first step in the correction of all real personality problems and it is reasonable to assume that it is sound procedure for all exploratory work.

An important part of growing up and achieving goals of maturity is for a pupil to be led to see that he has both strength and weakness. Harm can be done by the failure of the school to discover with and for the pupil that he has strength in a given direction and aid him to develop this strength. Part of the process of education is to arouse ambition and the desire to achieve. But another obligation of the school is to reveal to the pupil that he has definite limitations. Aroused ambition without the necessary equipment to accomplish the desired goals has made many pupils desperately unhappy. The injunction to "hitch one's wagon to a star" calls for sympathetic and intelligent assistance in determining which star one is to use for motive power. Too often the pupil selects a star that is impossible of attainment with the result that in spite of ambition, dogged determination, heart-breaking effort he fails to achieve his purpose. The heavens are full of stars—the world is filled with opportunities for genuine service. Pupils need sympathetic assistance in selecting the work they wish to do in the world. Part of the function of revelation is to call attention to the necessity for all types of work to be done in the world and that all varieties of talent can be utilized in a society such as ours.

The necessity for parental guidance in this matter is well known to all educators. The over-ambitious parent is one of the most difficult factors in this whole problem. Parents must be made to see that their unrealized desires and ambitions cannot be carried out through their children. The children have a right to a life of their own, and if the parents really wish their children to be happy and make a successful adjustment to life they can accomplish this purpose through working with the school to explore the possibilities of the child to make a success in life.

The exploratory function demands the closest coöperation and counseling between parents and the school. This in turn calls attention to the fact that part of the exploratory process goes on at home. Parents must be made aware of the significance of the whole procedure and work with the school. Probably no better way can be found to enlist the wholehearted support of the parents for the work of the school than in realizing the exploratory functions. Parents are interested in

an individual child. The demands of the school as an agency of society for its perpetuation and improvement do not arouse very great enthusiasm and may engender definite antagonism. The teacher must be able to see both factors—the individual pupil and the demands of society. By adequate exploration the pupil is aided in selecting a career that will be within his possibilities and will contribute to the well-being of society. When parents discover that the school has an intelligent and sympathetic interest in their children, that their child is known as an individual, and that time and energy have been spent to give him specific assistance, the attitude of parents is one of gratitude and warm support of the school.

III. A Consideration of Alleged Objections to the Function

To the protests that such procedure will cost too much and that the scheme is visionary and impractical, we call attention to the waste that intelligent exploration can avoid. Exploration is now being carried on both by pupils and schools. But this exploration is largely unintelligent and wasteful. It is being attempted in the upper divisions of secondary education where the costs are always higher. This could be reduced if proper attention were given this function in the lower school. Purposeful exploration would conceivably cost less after a period of years than the present haphazard system. The initial cost would be higher. The results in intelligent direction and in the conservation of energy would more than compensate for the additional cost. Social costs must finally be reckoned in terms of random effort, purposeless lives, and ultimate drift. The multitude of students in the upper division of secondary education and in our colleges, who are engaged in adding credit to credit with no appreciable increase in knowledge, power, or skill, and who finally graduate and drift into some line of activity, is the final answer to the matter of costs. One of the most serious wastes of natural resources in our country is found in this situation. The Pennsylvania Study offers abundant evidence of these facts.

The exploratory function is not carried on by itself nor for itself. The courses that are provided for exploration by the school serve as revelation to the pupil. All types of try-out courses, survey courses, and orientation courses serve not

only for exploring the individual's interests, aptitudes, and capacities, but will also serve to reveal the possibilities in the higher reaches of the subject. The teacher offering the course must be constantly aware of both functions, and the subject matter must be organized to achieve both objectives. It is quite obvious that the results achieved in such courses are fundamental to the guidance function as well as to Function X.

Some may object to this function because the attempt to determine the specialization of interests, aptitudes, and capacities will lead to early specialization with consequent narrowness of training. Such critics remind us of the fact that much of our economic and industrial maladjustment is due to overspecialization and that attempts to validate the function would only increase our difficulties. They call attention also to the great body of common knowledge that our people must possess if our democracy is to be a success, and that specialization must be postponed until the period of college training.

We feel that such critics misinterpret the function. All serious students of our democracy realize the dangers of overspecialization in education and in social and economic life. The purpose of this function is not to lead to early specialization. While determining abilities in special fields it will reveal inadequacy of training in fields of common knowledge. It can conceivably be used to check early specialization, and emphasize the necessity for integration in our democracy.

IV. Difficulties and Problems in Achieving the Function

1. The exploratory function will be most difficult of realization in the small schools because of the limited differentiation in the offering. This will complicate the problem of revelation of the heritage also. The average high school in the United States is a small school. Differentiation of the offering is an important means of exploration; exploration is vital and necessary if the investment in education is not to be dissipated. If "equality of opportunity" is to be ever approached in the matter of differentiation and the resulting opportunities for exploration, we must anticipate a

greater consolidation of schools and the employment of higher type and better trained teachers than are now to be found in the small high school. The problem inherent in this situation is a direct challenge to the best thinking our profession can summon. Until consolidation and increasing possibilities for differentiation, the small school need not neglect the exploratory function. In some ways the small school has a greatly superior opportunity to study pupils in all of their relationships than has the large school. Since classes are small, there may be intimate contact with pupils both within and without the school, and so a real opportunity to know the home and family situation. On account of the necessity for such pupils to provide much of their own entertainment and extra-curricular activities, there is inherent in the situation many elements that the large school must definitely provide for. The point that needs emphasis here is that the teachers and administration in such schools need to have the exploratory function clearly in mind as one of major importance. Teachers must not only teach their field of subject matter in a competent manner, but they must be alert to every opportunity to study their pupils.

2. The training and preparation of teachers who are competent in their subject field, and possess a growing competence as personnel workers is demanded. Such teachers are concerned not only with a pupil's growth in subject matter, but they regard the subject matter as instrumental. To these teachers, subject matter is both an end and a means. As the education situation now stands, subject matter is regarded as an end in itself to the exclusion of the instrumental factor. Teachers trained in the exploratory techniques will not neglect the importance of competent teaching, but they will realize that the job does not stop there.
3. Departmental zeal and consciousness will have to be reoriented, if this function is to be realized. Too often students are kept in a department when intelligent exploration has revealed their unfitness for

further work. Departmental pride and zeal seems to demand that "our department" maintain its strength and standing, many times at the expense of the pupils involved. It is quite conceivable that the time will come when after careful study of a pupil, his native equipment and his desired goal in life teachers will advise pupils to change their work to other departments. The students interests and capacities lie in another direction and time spent in their department, while pleasant and happy, is not contributing to the development of the pupil in ways that can be defended as socially significant.

4. There must be development and refinement of the materials and techniques of evaluation, both with reference to the pupils' interests, aptitudes, and capacities as well as the amount and quality of achievement in specific subject matter. Progress is being made in both directions, but acceptance of the exploratory function as one of importance and one wholly valid in secondary education would give unity and direction to the efforts that are being made.
5. Acceptance of the function as one of the important aspects of secondary education calls attention at once to the necessity for making definite provision for personnel work. This means that adequate records must be kept, clerical assistance must be provided, and teachers trained in techniques of exploration must have a place on the staff of every secondary school. This will increase the costs of education—at least at first. But the ultimate cost of preparing youth for democratic society will be lower. The costs that must be estimated finally in terms of an increasing number of people adequately adjusted to life, hence better prepared and better disposed to making society a "better place in which to live and in which to make a living."
6. Finally, the major difficulty is in the reorganization of the various courses of study to make them of maximum value to the extent to which they are pursued, and at the same time to carry on exploration and re-

velation. This difficulty has been stated earlier but is mentioned again because of its importance. Efforts at curriculum revision reveal abundant evidence of the fact as educators we are not agreed on values, either immediate or deferred, and lacking agreement we continue, for the most part, to carry on in the same old way. The growing demand for the reorganization of secondary education requires that all educators honestly face this problem. It will not be solved in one school; it will not be solved by one person. Every school and every teacher and administrator must be made aware of the importance of the problem, alert to possible methods of solving it in their own situation, eager to carry out experimental procedures under expert direction, and willing to share their experiences with others.

TRUMAN G. REED.

FUNCTION V

To systematize knowledge previously acquired or being acquired in course in such ways as to show the significance both of this knowledge and especially of the laws and principles, with understanding of wider ranges of application than would otherwise be perceived.

INTRODUCTORY SUMMARY

The work of systematizing knowledge into forms especially suited to young people must be included among the legitimate functions of the secondary school as long as formal programs of education are used to transmit knowledge and culture to the youth of society. The secondary school should exercise this function, of course, only within its own area. Other institutions exist for the purpose of systematizing knowledge in general for people in general. But the secondary school should not permit such institutions to interfere within its own sphere of activity. It alone has the right to select from established systems of knowledge such portions as it shall use in the education of its pupils. It alone has the task of reconstructing from the portions of knowledge it has selected new systems of special significance to youth.

Secondary schools became interested in this function when traditional systems of knowledge, unmodified, proved unsuited to their use. They found, for example, that systems of knowledge as fixed by academic authorities, who usually have a greater regard for the inner logic of the system than for the variable character of the secondary-school population, may serve as convenient compilations of information, but they do not adequately serve the purposes of the school in helping all sorts of pupils to improve their living. Equally inappropriate to the purposes of secondary education are systems of knowledge that aim only at meeting the requirements of admission to college, or that reflect the antiquated notion that certain subjects are exclusively good for disciplining the mind, or that concentrate on limited vocational skills, or that conform to the mechanics of the American system of education with its tend-

ency to substitute credits earned for educational growth attained.

It would be foolish, of course, to dismiss all such systematizations of knowledge as entirely without value to secondary schools. The formal organization of materials into the traditional subjects of the curriculum has, for example, advantages of ease and economy and it may still be appropriate for the intellectually superior students who are well advanced on the long academic road of preparing for the professions. Of even greater importance is the emphasis the traditional systematizations place upon order and coherence in arranging materials and activities—characteristics conspicuously lacking in much of the new elements added to the curriculum. These features of its older practices should not be neglected by the secondary school in making a new approach to the problem of systematization.

This new approach should be principally dominated, however, by a wise regard for the interests and needs of pupils, the laws which govern their learning, and the aims of society in supporting schools. For developing systems of knowledge along these lines, there are many techniques available—some already tested by use. The materials for learning, for example, may be organized into units centering around problems common to many pupils. Another promising method developed in recent experiments is to awaken a pupil's initial interest in his school work by relating his learning to his immediate activities and then to systematize his subsequent learning upon a progression of directed interests. Even the older method of moving in logical steps from one segment of subject-matter to another has its place in the total scheme, particularly as the higher levels of learning are reached. In fact, every method of systematization appropriate to the circumstances should be called upon at times to promote that inner process by which knowledge is organized and evaluated in the mind of the pupil—the final measure of the school's success in discharging this function.

It is to be expected that the methods of systematizing knowledge adopted by secondary schools will in practice be modified by the individual teacher. The school may select the materials of learning to be used, establish general principles of

procedure and define the ends of education, but it must leave in the hands of the teacher the final problem of converting all three into a pupil's educational growth. Hence by training and by native ability, a teacher should be a master at adapting knowledge to learning so skilfully that the proper habits, skills, concepts, and attitudes will emerge from a pupil's school experiences and modify his subsequent behavior.

Undoubtedly serious obstacles will arise to hamper the secondary school in developing system of knowledge suitable to the education of all youth. The limited intelligence of many pupils and the difficulty of selecting curriculum material appropriate to their interests and capacities will be the major impediment. The native intelligence of the pupil we know cannot be altered. But the possibilities of adapting the materials of education and of discovering new materials are far from being exhausted. One of the first steps to be taken in this direction is to reconcile the two conflicting theories of learning and curriculum organization which favor controversy at the expense of progress. Educators now tend to divide into those who believe that the nature of subject-matter defines the character of education and those who believe, on the contrary, that the character of education is defined by the nature of the child. Each theory has its value—one in rescuing education from the restrictions of individual interest; the other in giving personal significance and purpose to learning. A mature educational theory will harmonize both views, and once this is done the profession will be in a position to remove the remaining obstacles to the discharge of the function by using better guidance procedures, by developing skill in the selection of appropriate subject-matter, by simplifying for general consumption the more difficult aspects of the aesthetic arts such as music and literature, by reforming the selection and training of teachers, by relaxing college requirements, and by constantly liberalizing the curriculum, particularly in the vocational field.

I. How Knowledge Became Systematized

Early Systematization: Its Origin and Significance. The systematization of knowledge had to begin as soon as the activities of a primitive social group had created knowledge that

it was desirable to transmit. At first the youth arrived at this knowledge largely through imitation in play of the skills established for hunting and fighting, with gradually increasing participation in the activities themselves. In time, accumulations or organized knowledge such as tribal secrets, folkways, and mysteries, were handed down by word of mouth or by ceremonial. When mere memory no longer sufficed, the traditional knowledge of greatest significance had to be selected for written record. Increasing specialization and diversity of opportunity at length left the home neither time nor ability to furnish all the training required. The social group needed, and created, the teacher and the school. The teacher found that transmitting knowledge required a design, for both selection and analysis of what was to be taught. Categories of learning were demarcated.

Although knowledge was at first intimately related to everyday, practical activities, masters selected to teach because of their unusual accumulations of knowledge developed a separation of the practical and immediate from the theoretical and remote. The simple arithmetical numbers of the marketplace were translated into the brilliant intellectual abstractions of algebra and geometry. Such discoveries stimulated the further systematization of knowledge. When science appeared, it exercised a remarkable influence upon social and economic forms. From this fact emerged the belief that if definite types of knowledge are taught, practical applications will eventually take care of themselves; even though it increases specialization, pure science, it is often maintained, is the most potent, practical, permanent factor in modern civilization.

Vast new accretions of knowledge encouraged the tendency to crystallize learning into isolated and specialized parts. While discovery, invention, revolution accelerated progress and the diversification of culture, adherence to rigid compartments of knowledge tended to vitiate instruction, so that formal learning became associated with more adornment instead of with forceful utilization of experience and learning.

Early Systematization of Knowledge in America. The earliest systematized secondary-school material in America presented the ancient languages and mathematics. As secondary schools spread, the definite and narrow systematiza-

tion of these subjects in small units set the design for succeeding courses of study. Such dissociation made all knowledge seem of equal value; minor facts and implications might obscure major facts and underlying principles. By 1892 the multiplicity of courses had given rise to so much dispute over values and proper systematization that there was a strong demand for suitable investigation. The famous Committee of Ten¹ gave long and serious consideration to the weaknesses then current in the organization of subject matter. The report of this Committee contributed enormously to stabilizing the classification of subjects and emphasizing the importance of definitely systematized subject-content.

Colleges then developed gradually a system of requiring for admission specific units in several unrelated fields. Meanwhile, the organization of material in each subject was passing through a long period of refinement. Committees of the College Entrance Examination Board and of regional associations, such as the North Central Association of Colleges and Secondary Schools, determined the content and the units of organization within the secondary-school curriculum. By specifying high-school subjects, these associations implied certain prerequisite studies, thereby affecting systematization at the elementary level. But the colleges obviously did not contemplate coördinated systematization through the secondary schools and into higher education.

The Extent of Systematization. At first thought it may appear that Function V has little relation to the elementary school, for it has long been assumed that lack of systematization is unavoidable there. Typical is the following statement:

This is characteristic of primary or elementary education, that it must take the world of human learning in fragments and fail to see the intercommunication of things. The education in high schools and academies, which we call secondary education, begins to correct this inadequacy of elementary education; it begins to study processes; it begins to see how things and events are produced; it begins to study causes and productive forces.²

In recent years elementary schools have, however, progressed conspicuously in systematizing learning. They have

¹*Report of Committee of Ten on Secondary-School Studies.* New York: American Book Co., 1894.

²W. T. Harris: *Report of the Commissioner of Education, 1892.*

improved in continuity from grade to grade, in correlating fields of learning, and in effective illustration, by laboratory and socialized methods, of organized synthesis of knowledge. The junior high school has likewise contributed largely to a gradual process of application and interrelation of knowledge. The senior grades have been influenced both from below and by the junior college above, so that the future operation of Function V seems directed increasingly to a stream of continuity running throughout the entire public process as set forth in Issue X.³

The tremendous widening of the boundaries of knowledge has created a dual movement. On one hand, once well-defined fields of knowledge have expanded until they overlap other precincts, while on the other hand established divisions of knowledge have developed more and more sub-divisions. To illustrate: The Committee of Ten in 1892 considered forty subjects. The National Survey reports that in 1930-31 a hundred and forty-eight schools reported a total of four hundred and seventeen distinct subjects.⁴ Whatever overlapping there may be in the content of these courses, and however the attempt to meet individual differences may justify such a multiplicity of subjects, the report reveals the amazing extent of the decentralization of knowledge.

Such segmentation of knowledge betrays the lack of synthesis and sequence. It justifies the caustic criticism of W. S. Learned:

The curriculum is a rope of sand, without texture or organization. Effective education through related ideas is thereby sacrificed to the mere registering of information. . . . Convinced that knowledge is power, we have assumed that presenting information is identical with conferring knowledge and have hastened to make broad this easy and royal road to an educated democracy.⁵

³Committee on Orientation of Secondary Education: *Issues of Secondary Education*, Issue X. Chicago: Department of Secondary-School Principals of The National Education Association, Bulletin 59, (January, 1936).

⁴A. K. Loomis, E. S. Lide, B. L. Johnson: *The Program of Studies*. National Survey of Secondary Education, Monograph No. 19. U. S. Office of Education, Bulletin, 1932, No. 17.

⁵W. S. Learned: *The Quality of the Educational Process in the United States and Europe*. New York: The Carnegie Foundation for the Advancement of Teaching, Bulletin, 1927, No. 20.

Confronted with this vast field, the individual needs help in choosing, for four hundred and seventeen segments of knowledge cannot be equally difficult or equally valuable. While to some extent the choice must be an individual responsibility, some guiding principles must aid the pupil. No doubt much confusion in the youth's solution of the problem is due to his elders lack of clear principles of selection and their failure to recognize certain established conceptions of systematized knowledge.

II. Established Conceptions of Systematized Knowledge, Their Meaning and Significance

Systematization as Influenced by Authority. Until comparatively recent times, the world of men and things changed so slowly that knowledge was not only exact and fixed, but final and authoritative.

Authoritative handing down was the acknowledged basis of knowledge. To these men the very nature of knowledge as existing prior to the act of learning was such that it required this treatment. Religious sanctions often accompanied to add a sacred fixity. Under such circumstances, any conception of learning was the correlation of a handing down on authority, so to learn was basically acquisition and acceptance on authority.⁶

Such a conception of knowledge gave text, study, recitation their traditional interpretation, and fixed a systematization which rested largely on the authority of the master scholar who believed that natural laws, fundamental principles, conceptual ideas, existed outside of men and were basically independent of human experience. Starting from an original experience, invention, or discovery, the master developed his material logically or chronologically. Schools, therefore, undertook to transmit such concepts and fundamentals in absolute and arbitrary form, and to give them textual permanence.

Knowledge so systematized by authority influenced also other forms of systematization.

⁶W. H. Kilpatrick: *A Reconstructed Theory of the Educational Process*. New York: Bureau of Publications, Teachers College, Columbia University, 1935.

Systematization as Influenced by the Concept of Education as Preparation for Adult Life. A look at the past discloses that adult conceptions have been authoritatively imposed upon the young with little regard for their nature, needs, character, interests, or abilities. Subject matter was assumed to have been formalized logically, and the process of education was considered complete when the learner could reproduce the material in the form given. This view of learning accounts also for the long emphasized aim of education as preparation for citizenship; it was assumed that knowledge of institutions as formally organized would prepare for intelligent citizenship.

The philosophy of Dewey that "education is not preparation for life; it is life" was eagerly recognized as a new yet fundamental truth. This modern philosophy focuses effort on the development of those abilities not only active in youth but determining results in later life. To recognize the child's present needs, interests, and capacities provides an organization of effort and material which not only makes the learner's life immediately rich, but prompts continued enrichment. Knowledge of the racial inheritance and understanding of the social controls are not to be disregarded but rather organized into everyday application to current activities. Whatever may be accepted finally under searching analysis as the racial achievements desirable to pass on to succeeding generations, they will constitute at best but one of a number of principles for the organization of knowledge and but a part of the general practice of systematization.

Systematization as Influenced by Preparation for Higher Schools. The original college curriculum, definitely organized to prepare for certain professions, strongly established the classical studies. Upheld by custom and by the prestige of national leaders who were products of such training, the traditional core of the college curriculum has persisted, even though the original purpose of its organization has largely ceased to function.

The demands of such a college curriculum therefore determined the systematization of secondary education, specifying certain prerequisites in English, mathematics, languages, and other fields. Under committees of the College Entrance Examination Board within recent years, systematization has progressed markedly as to synthesis within fields and realiza-

tion of the comprehensive character of education. More recently the Board's committees have given revolutionary consideration to a fusion of sciences and one of social studies which would eliminate the well-defined subject lines and develop each of these fields in systematic synthesis from year to year. With adoption of these reports, comprehensive examinations would be given for the entire field of science, for example, instead of separate examinations in botany, zoology, physics, chemistry, et cetera.

In the past, college preparatory units constituted the programs of the majority of pupils regardless of intent to enter college. But neither schools nor pupils are longer willing to accept the organization of college-preparatory units as dominantly satisfactory when college entrance is not involved. On the other hand, the junior college is not ready to show the way, for it is still largely dominated by the organization of subjects familiar in colleges.

Systematization as Influenced by the Theory of Transfer of Training. Although much controversy surrounds the theory of transfer of training, no one will deny that this theory has greatly influenced the systematization of knowledge. When it was generally believed that the mind consisted of a number of such powers as memory, reasoning, judgment, imagination, definite exercises in formal subject matter were provided to train these powers. Geometry, for instance, was taught as the best formal discipline in reasoning.

This theory has, however, been modified by experimental evidence. One modified theory states that transfer occurs only to the degree that there are common elements in two situations.⁷

This theory has revolutionary potentiality for the curriculum. It implies systematization of meanings and flexibility in their application to new problems. The established organization of matter will not suffice; a reorganization is needed which will emphasize the process of systematization rather than the content itself. The ability to associate knowledge will become more significant than its mere possession.

⁷P. T. Orata: *The Theory of Identical Elements*. Columbus: Ohio State University Press, 1928.

Systematization as Influenced by Preparation for the Vocations. The home and the apprentice system at first regulated vocational training in America. But the apprentice system disappeared at the time that increasing industrial complexity and specialization were creating many new occupations. These changes called for much new vocational training. Private vocational schools at first provided this, determining the systematization of their material by the practical needs of the business world. Extended interest and opportunity, however, forced the responsibility for vocational training upon the public schools. Gradually the new vocational subjects were reorganized under the influence of the traditional academic subjects until such vocational materials has a formal systematization comparable to that of the sciences. For example, some courses in woodworking start from an arbitrary point, long accepted authoritatively as correct, and proceed by definite, formal steps.

Pre-vocational and general shop courses recently have become systematized about the child, but vocational courses, especially as they emphasize definite training for trades, are still highly formalized. However, alert and progressive vocational departments have introduced such practical problems and activities that an improved systematization of learning has developed, correlated with practice.

The greatest problem for vocational education now seems to be organizing its material so as to avoid excessive emphasis upon mere skills which may be quickly supplanted in the shifting industrial world, and to give instead wider ranges of application. The current trend of vocational education seems to be toward an organization of a general educational character, with more latitude for exploration and peculiar interests—a trend that promises significant knowledge intelligently applied.

Systematization as Influenced by Schematic Organization.

A new meaning was added to the systematization of knowledge by the unique development of education in America. Democracy and equality, rapid growth, the pressure of sheer numbers, conspired to the hasty development of a mechanically organized scheme of education for all the children of all the people. Eight grades of common school, four of high school, four of college; semester, quarters, terms; units,

credits, points; curricula, courses of study, subjects—all these give evidence to the emphasis of mere mechanics in the American systematization of knowledge.

III. The Movement for the Re-Organization and Re-Systemization of Knowledge

The Need for Systematization. Mastery of the tool subjects, it may be assumed, should be an organized part of Function V; these subjects, so taught, should either develop the ability of the individual to go further in the pursuit of knowledge or furnish equipment which will operate immediately. Adequate provision for such purposes requires the systematization of the knowledge previously acquired into an articulate continuity. The large increase in the number of pupils in the secondary school with lower learning capacity merely accentuates the desirability of organizing the tool subjects, especially, so that they will function more rapidly and effectively.

The elementary school has made a slight beginning in systematizing knowledge according to the new conception, by interrelating such fields as history and geography, providing more definite sequence from grade to grade, and developing more progressive attempts in the field of projects and pupil activity. In secondary and higher schools, however, systematization of learning has been attempted more seriously.

Weakness of Secondary Education Particularly in Its Own Courses. Secondary education has been particularly weak in the organization of those courses for which it has been peculiarly responsible, due, no doubt, to the lack of a directional philosophy. As has been shown in the discussion of Issue VI, this weakness has made colleges hesitate to accept new high-school courses for college entrance. Colleges have usually restricted entrance credits to knowledge that is scientifically or logically organized. Their disfavor for the new courses, no doubt, arises partly from the failure of high schools to distinguish adequately between scientific or technical knowledge and applied knowledge. Correlated or integrated "everyday" mathematics affords an example of a loosely-organized subject that fails to conform to the required logical and formalized organization of geometry. General science, with more

than twenty years of effort, still fails to receive distinct recognition because of its lack in scientific organization.

There is much need for the systematization of the comparatively small amount of scientific knowledge necessary as laws and principles, of rescuing these from the accumulated mass of associated information, and of building up ways to translate laws and principles into functional applications.

The problem of the weakness of secondary education in the courses for which it is solely responsible might be solved in two ways: First, by application of the modern philosophical and psychological principles which, interpreted in the extreme, would organize all knowledge around the psychological experience of the learner, with the result that no significant knowledge could escape application and the scientific principle of organization would inhere in the applications made by the learner rather than in the knowledge itself; or, second, by systematizing scientifically only that knowledge which is necessary to the understanding and further development of principles. If the latter were done, each course of study or curriculum activity would be measured by the clarity and value of its underlying principles as systematized not merely for acquirement, but predominantly for function through continually extended application by the learner.

For in the test of function through continued application, both old and new courses in the secondary school fail. Undoubtedly the breakdown of continuity in the old courses and laxity of organization in the newer ones result largely from the urge for reform, which has undermined confidence in the traditional organization of knowledge and, as yet, has not fully demonstrated a certainty of values or of methods of organization in the new proposals. While clinging with decreasing certainty to the values of the old forms, the school is at the same time fumbling in perplexed efforts to adapt new designs.

Systematization Needed to Improve Articulation. Much needs to be done to organize the design, if not the materials, of the new courses more understandingly. There is need for the purposes, activities, materials to be more closely oriented with the older courses and aims of the school and there should be a greater effort to link the new courses, as well as the old, more intimately with knowledge which has been brought up from

the school below and at the same time to indicate the possible connections with knowledge which lies ahead. This latter effort is especially desirable in developing better articulation between the secondary school and the college.

Function V is therefore directly related to preparation for advanced studies, although limited by the belief and experience that many students have not sufficient mental capacity to go far in the pursuit of systematized knowledge.

Lack of Systematic Procedures. The secondary school is often charged with serious lack of organic unity, especially in the upper grades, and with much waste through duplication and overlapping. Some investigations have borne evidence to this effect.⁸ The reports of the Department of Superintendence also indicate the need of a more systematic and scientific organization of materials and activities.⁹ The weaknesses of the American high school in these respects are particularly considered in the report of the Carnegie Foundation.¹⁰ The lack of scholarly achievement within our schools is often attested; and the failure of high school and college graduates to carry forward, as well as might be expected, an extended interest in the acquisition and application of knowledge adds significance to the consideration of the function under discussion.

The secondary-school teacher has usually been so overworked with the mere imparting of information that the use of systematization to develop the thought process has been largely neglected. Patrons, boards of education, and administrative officials, often too far removed from the needs and limitations of the pupils, have insisted upon the repeated use of factual material with little, if any, systematic organization toward desirable goals. Many schools, too, have failed to organize and use systematic reviews, not only to emphasize laws

⁸L. V. Koos: *The Junior-College Movement*. Pp. 268-273. Boston: Ginn and Co., 1925.

⁹A. J. Osburn: *Overlapping and Omissions in Our Courses of Study*. Bloomington: Public School Publishing Co., 1925. Department of Superintendence: *The Development of the High-School Curriculum*. Chap. XIV. Sixth Year Book of the Department of Superintendence of the National Education Association, Washington, 1928. See also *Articulation of the Units of American Education*, Part III, Seventh Year Book, 1929.

¹⁰W. S. Learned: *Quality of the Educational Process in the United States and Europe*. New York: Carnegie Foundation for the Advancement of Teaching. Bulletin, 1927, No. 20.

and principles, but to interrelate, generalize, make applications, "so as to formulate the net outcome," as Dewey says. Reviews of this character are indispensable for adequate systematization and for guarding against loose habits and uncertain accomplishment.

Factual and fundamental bases are obviously essential if abilities in creative thinking are to be developed and successful applications made. "Reasoning in any subject cannot come out of thin air. There must be a background of learned facts and information, and, in some subjects, mastered skills upon which to build. Tentative solutions need recognized starting points known to be true."¹¹ While this truth is generally recognized, the need for refining the process of organization within a specific realm of knowledge, for relating a field of learning to all other fields, and for insisting upon the development of applications, has not been sufficiently realized. There is also need for including material which by its organization and character will be a challenge to mastery—an opportunity to pupils who are able and eager to achieve excellence. Much of our high school instruction and material does not challenge these pupils to their best mental endeavor. For them mastery can be, and should be, much more significant than mere lesson learning.¹²

Failure to Systematize the Old with the New. Another frequent criticism is that the existing organization is inadequate or weak because of the changes in the purposes of the school. Certainly there is wide dissatisfaction with the old, formal aims of education, and many attempts have been made to formulate aims in harmony with the changes in social, cultural, and economic life. It is clear that the new aims have not been supported by sufficient reorganization of the curriculum.

A weakness of this character is pointed out in connection with adjustment to the best that is known in respect to the learning process. True learning, as psychologically conceived, rests upon a learning activity which results in the desired outcome and functions in terms of announced objective. It is charged that much of the existing organization of instruc-

¹¹W. Z. Smith: *Secondary Education in the United States*, p. 313. New York: The Macmillan Co., 1932.

¹²H. C. Morrison: *The Practice of Teaching in the Secondary Schools*, Chaps. II-III, Chicago: University of Chicago Press, 1931.

tional materials does not conform to this conception of the learning process. Accordingly, the subject matter of the secondary school needs to be re-systematized so that it will produce learning activities designed and operated upon the best psychological principles. Further treatment of these principles is reserved for the topics dealing with the applications of knowledge.

Changes in the Conception of Systematization. Historically, the school introduced the learner to material and methods that, as the child progressed, departed increasingly from the needs and desires of his life outside the school. In the past the advent of the child into the secondary field was accompanied by a deliberate attempt to recognize and develop knowledge as material quite apart from the normal, functional realities of life. It was assumed that, certain important knowledge having been instilled in unrelated units, the mind would discover in time what functions and associations the knowledge had. This conception of learning has been briefly outlined in Issue VI. The fallacy of imparting knowledge for the sake of knowledge was long undetected.

Recently, however, the belief has grown that knowledge is most usable when it is so organized that various fields or diversions become integrated parts of a whole system of learning. This view does not ignore the fact that the process of learning begins by the acquisition of knowledge in small bits or units and that the child must acquire his first knowledge in more or less illogical discontinuity. But the learning process itself is largely conditioned by the degree to which the knowledge acquired meets the practical needs and wants of the child.

New Interpretations of Systematization. Various new conceptions are crystallizing relative to both the organization and the use of subject matter. Referring particularly to the use of subject matter, Kilpatrick says:

The crux of the difference between the old and inadequate on the one hand and a newer and more adequate view of the educative process on the other hand has in the discussion thus far been located in opposed meanings of the verb to learn. This crux might have been stated in terms of subject matter . . . Some who like to call themselves progressive have gone no further than to think

of "making" this subject matter "interesting"—"palatable" might be a better word. They fail to see that any life process worthy the name must study in order itself to move on, that human life in order to be itself must include learning. As for subject matter—if only we can form guiding conceptions as to how to steer life so that as life it becomes more adequate, subject matter will largely take care of itself. . . . Our first and last thought is of life and personality, twin aspects of the same process, that the two may grow jointly in the most defensible way we can manage. If this be well done, more and not less of "subject-matter" will be needed and it will be better learned than hitherto.¹³

Another statement attesting the development of a new philosophy is given by Grizzell:

The true curriculum cannot be stated in terms of subject matter, although such has been the common practice due to a misconception of the meaning of education. It must be stated in terms of experiences that affect changes in human beings. But what are these changes? Briefly, they consist of certain developments that require formation of habits, skills, attitudes, ideals and powers. In so far as knowledge is an outgrowth of the process, the accumulation of knowledge is likewise a part of education. The curriculum in the large sense represents the sum total of all the influences that contribute to the modification of the individual's original nature. The curriculum of the school is represented by the influences of the controlled environment which modify, supplement, and complete the education already performed by other agencies. This conception of the curriculum implies a changing and growing curriculum. A true curriculum must recognize the composite and complex nature of society, as well as the changing nature of the child. It must recognize that present social experience is a transient thing and may vary from day to day. It must, to a reasonable degree, forecast the future of society in order that it may prepare the individual in a real sense for adult life when he shall have reached that stage in his development.¹⁴

The modern conception of education emphasizes that the truly educated person has not only explored several different fields of knowledge systematically, but has also developed the

¹³W. H. Kilpatrick: *A Reconstructed Theory of the Educational Process*. New York: Bureau of Publications, Teachers College, Columbia University, 1935.

¹⁴E. D. Grizzell: *Education: Principles and Practices*, The Macmillan Co., 1929.

ability to demonstrate the relations and values of each to the others; and, in final proof of educational efficiency, the educated person is able to select and apply the appropriate knowledge to some constructive individual accomplishment as well as the current problems of the society in which he lives.¹⁵ This change in conception and emphasis demands the reorganizing of the patterns of knowledge into a design which will systematize the old with the new.

Other conceptions of systematization would go further by regarding the child's activities and interests as the sole criterion for the systematization of knowledge. Knowledge would be recognized as such only in relation to some advisable or necessary systematization of the pupil's own experience, an organization which the pupil himself would determine. Under this plan, the structural framework would be objectives, goals, interests, about which the child's experience would be organized; knowledge would be accumulated as needed and with little or none of the traditionally accepted logical procedure.

Changed conceptions of systematization have been brought about by developments in the field of psychology, as well as by changes in educational philosophy. These influences will be given fuller treatment under the topic "Conflicting Theories of the Organization of Learning."

The Influence of New Scientific Attitudes. Recognition of the importance of scientific procedure, slow in developing, is still far from general. But growing interest among school patrons and the general public is a hopeful sign. Realizing the inadequacies of the old organization of knowledge, the public is giving increased support to scientific investigation of the social, economic and psychological needs of the learner in order that what should be studied in courses or learned through activities may be determined. There is a growing demand, also, that the whole of knowledge plus the whole of man's activities should be analyzed so that the necessary knowledge and its applications may be systematized more efficiently for the needs of society and may be at the same time more suitably organized into the life of the learner for the best development of his own personality. That such efforts should be placed under the direction of competently-trained specialists in educational

¹⁵T. H. Briggs: *Secondary Education*, p. 274. New York: The Macmillan Co., 1933.

research and in curriculum making has been fairly well established, and it is understood, as well, that such organization should not become static, but rather that the process of analyzing, judging values, selecting material, correlating what is to be learned with the current needs and abilities of the pupil should be a continuous procedure.

The difficulties incident to the reorganization proposed in the foregoing paragraphs are far greater than would at first appear and will be considered specifically under later topics. Suffice it to emphasize here that there must be, first of all, a wide recognition of the general philosophy just outlined if the attack on the specific difficulties is to be successful.

What Organization and Systematization Should Be Attempted? At the beginning of the century, the traditional organization of knowledge began to break down in the secondary school, and the curriculum became more and more an "assembly of parts." Since 1890 there have been no attempts to recognize emerging economic, industrial, political, and social problems, but such attempts have merely increased the existing confusion and uncertainty. Courses were added to the curriculum, or removed, with little or no attention to the general scheme of organization. Specialists in the subjects directed the organization of new material in the pattern of the old, regardless of the suitability of such systematization.

Necessary Adjustments in Points of View. In order to determine what new organization should be attempted, certain adjustments will have to be made between those who believe in the subject-centered organization and those at the other extreme who would center all organization around the learner. Some will maintain that the point of departure and the principle of greatest importance is "true learning," but here a difficulty over definition will create dissension. Others, and the majority, no doubt, will insist that whatever true learning may be, the determination of orderly arranged content is the controlling factor. Interpretations of order and system will vary, with some emphasizing the scientifically developed structure of the subject and others centering upon the process of individual growth. Obviously, competent research and study will consider all these variations and in the end should evolve a properly designed synthesis of all these elements and of additional ones as well.

Guiding Principles to Be Used. Several conceptions or principles which have influenced the organization of knowledge were briefly presented in the second section of this paper. But modern thought indicates that the nature, the needs, and the functions of society and of youth are the most significant and impelling principles for determining the organization and systematization of knowledge. Such principles imply concrete objectives—such, for example, as economic self-sufficiency, or the social participation by which the individual lives successfully with his fellows, or the coördination of the abilities, interest, and needs of the learner. Under such principles, the social program is of prime importance, particularly for the purposes of education at the adolescent period, when the social impulses of the youth are emerging, the nature of life as idealistic is challenging to young people, and practical adjustment becomes a significant conception and chief guiding principle of educational activities.

In determining what principles should guide the attempted reorganization it would, obviously, be desirable to make further study of the older principles to ascertain which ones have outlived their usefulness and which ones may be readapted to the newer needs and interpretations, or what good may be extracted from them to aid in the construction of principles more suitable to modern needs.

The Committee on Orientation has outlined the significant issues in secondary education and determined an objective point of view in each case;¹⁶ it has done the same thing for those functions which belong peculiarly to secondary education. The objective solutions of the issues plus these special functions offer modern and progressive guiding principles for determining what systematization is necessary and significant.

Fundamental Processes and Basic Knowledge to Be Systematized. Much secondary-school education will probably recognize the type of learning which involves the fundamental skills and reactions. Some of this material will be organized as continuing the process started in the elementary school of acquiring basic knowledge—such material as Judd refers to when he writes:

¹⁶Committee on the Orientation of Secondary Education: *Issues of Secondary Education*. Chicago: Department of Secondary-School Principals of the National Education Association, Bulletin No. 59, (January, 1936).

For example, the use of language and of number as exhibited by mature individuals must be thought of as achievements which no individual could have accomplished by himself and as modes of adaptive behavior which are unqualifiedly of the highest importance. Man lives in a world of social relationships made possible by language and number. Man would be utterly unable to make the scientific attack on the world which is characteristic of modern civilization without language and number and other similar devices which have resulted from social co-operation. . . . New syntheses of knowledge are demanded, but knowledge will always have to be systematized and arranged in coherent subjects. . . . The materials of instruction need to be amplified and rearranged and organized. The emphasis is on organization.¹⁷

Rugg also emphasizes the need for re-systematization in basic courses:

The only hope that these outcomes can be guaranteed, lies in their clear definition in the minds and vision of teachers. Furthermore, to be reasonably sure that instruction produces these outcomes, the activities of childhood (including all the kinds of work we do in the school) should be planned in outline form in advance. I am convinced that the outstanding weakness of the laboratory schools is their very lack of outlines planned-in-advance. And it is the protagonists of the theories of laboratory schools who, more than others, have confused our thinking on this matter.

Apropos of this problem, I interpret these phrases in the General Statement.—‘sequence of experiences’ and ‘subject matter’—to mean that for the most effective use of school time and in order to guarantee maximal growth, the constructive social and creative activities, as well as the correlative skills should be charted, written down, both in broad outline and in some detail. . . . Surveys of recent practices in particular schools present convincing evidence that one of the chief weaknesses of ‘courses of study’ is the lack of continuity in the respective grade programs; the lack of sure provision for steady development. Teaching units are planned quite in isolation, both for successive years and within grade curricula. The need

¹⁷C. H. Judd: “Supplementary Statement”, *Twenty-sixth Year Book*, Part II, pp. 113-117. National Society for the Study of Education. Bloomington: Public School Publishing Co., 1926.

in practical curriculum-making is for a charted picture of the whole scheme.¹⁸

The Systematization of Knowledge Gained Within and Without the School. Conformity to the principles which should govern the organization of learning would mean that most of the current courses would need to be re-systematized. The function now being discussed would especially emphasize such need. If material is to function adequately, it is reasonable to assume that the students entire background of information and experience, both within and without the school, should be organized. Organization would be designed to show the relations of a unit to all others in order that any part might be properly utilized for the requirements of life. Clearly the secondary school should assume a large responsibility in the realm of revelation so that students may know and understand the meaning of the material presented and so that retention and application may be immediate and continuous.

In this light, the organization and immediate values of all subject-matter demand larger attention. Adequate systematization should, it is especially necessary to demonstrate, clarify and extend the possibilities for application. There is ever need for students to be given the widest possible realization of the opportunities both inherent and developmental within the knowledge which is being acquired. An appreciation of what the material in hand can and will do, not only maintains interest and aids acquirement, but suggests opportunities for effective relation to the knowledge which has been already systematized.

A current interpretation of this total systematization would involve the reorganization of the entire secondary-school curriculum, with the intent of producing effective function upon the social and economic problems of the day. This would necessitate a radical departure from the customary procedures, to a systematized continuity of problems organized, for example, into a course of functional units.

The trend obviously indicates more attempts in this type of organization within the social studies field. If this conception of systematized knowledge is to make the progress its

¹⁸H. Rugg: *Twenty-sixth Yearbook*, Part II, pp. 159. National Society for the Study of Education, Bloomington: Public School Publishing Co., 1926.

adherents hope, there must be definite efforts to broaden the organization beyond the social studies. There should be specific attempts to systematize integrated and correlated references and meanings with extension to material now outside the school. This will tend to make all subjects or units within subjects more functional because more meaningful. An example is afforded by the report on Integrated Mathematics.¹⁹ The new "Experience Curriculum in English," a report of a national commission, is another interesting and promising indication of the attempts being made in this direction.²⁰ Other illustrations of such organization will appear later.

From field reports of such organizations as the North Central Association of Secondary Schools and Colleges, it is evident that too little actual re-systematization of high school subject matter is going forward in the light of the newer conceptions of the uses of knowledge. If the function under discussion is valid, then it is highly important that each secondary school set about discovering wherein its present organization fails in adequate, meaningful systematization.

Analysis of the existing situation should indicate the first and most feasible point of attack. Once started, the refinement of systematized procedures and confidence in a more carefully organized plan should justify satisfaction and inspire progress toward improvement of the entire curriculum.

How Knowledge May Be Systematized. In man's fight to wrest satisfaction from a resisting environment he is ever in search, unless too greatly intimidated by inhibitions of the social group, for a better tool, a more clearly understood expression, an improved skill, to make his efforts more pleasurable and his gains more secure. What knowledge is most meaningful in this process and how is it best systematized? The stimulus for new knowledge or for relating old knowledge to new accomplishment usually springs from dissatisfaction or a definite need. The old knowledge becomes recognized as inadequate; its organization no longer produces desirable applications; new discoveries disrupt the established logic and

¹⁹National Council of Mathematics Teachers, *Third Yearbook*. New York: Bureau of Publications, Teachers College, Columbia University.

²⁰Curriculum Commission: *An Experience Curriculum in English*. English Monograph No. 4, National Council of Teachers of English, New York: D. Appleton-Century Co., 1935.

suggest a new systematization. In any case, a specific problem calls for solution. The first step is to recognize the specific nature of the problem and to separate its particular materials from the general situation or environment. Observing the data of component parts is the first step in the reorganization. The next is the recognition of the elements in the situation which are common to all the material or data. Their unity promises the creation of a desirable and useful pattern. From this unity and pattern should come a general principle or hypothesis. Whatever the result it has been gained by examining only a small section of the whole. This fact necessitates a final step: "The fitting of the newly discovered general principle into the frame from which it was extracted by being applied to the problem in the world which occasioned the experiment. The principle is true and valid to the degree . . . that it resolves the problem."²¹

It is by such processes that all skills in judgment are formed. The knowledge thus obtained is the only dependable verifiable knowledge. This is "scientific" knowledge, so-called. "It makes no pretense of producing perfect results. The best tool is simply demonstrably better than others constructed for the same purpose; in time it may be superseded by a better. The system is thus an open and cumulative one, providing for the desire of man to construct increasingly better tools."²² Repeating the steps emphasizes the absorption of the old; yet each time something is added, perhaps slight, but never before employed. It is by such means that knowledge becomes systematized into significance and use.

Approaches to the Problem of Systematization. There are currently two main approaches to the general problem of systematization: first, by means of organized ideas or the subject unit, the subject field or the material which is to be learned; second, by way of the child, by ways of thinking, or the learning process itself. In the end probably there will be more or less resolving of the two. The subject-matter approach is less difficult and more common. All organized subjects offer examples. A short course in the field of industrial art, for instance, may be organized into special units, each of which is

²¹E. A. Burt: *Principles and Problems of Right Teaching*. New York: Harper and Brothers, 1928.

²²*Ibid.*

carefully systematized in the interest of ease and rapidity of presentation and of learning. Such a course may be formalized in the image of older traditional courses.

If, as a result of his learning, the child is able to generalize, it may reasonably be assumed that there is some systematization of knowledge. The ability of the student to generalize is accelerated by his consciousness of the degree to which his knowledge has been systematized. Systematization itself is relative. It is continuously developing from fact to fact, from unit to unit, from generalization to generalization, not only within the same unit or field, but to ever-widening degree between units and fields. The acquisition of facts may be used as a basis for developing certain techniques which become habituated eventually as attitudes or ways of making generalizations from one fact or unit of knowledge to another or from one situation within a field to new situations in new experiences. The older approach, by way of the acquisition of facts, is handicapped by formality and artificiality, and tends to limit application. Pupils with a type of intelligence which responds readily to abstract form and method demonstrate a larger degree of success in the more formal subject systematization.

For the larger number of pupils there seems to be more promise in an approach to systematization which uses the individual as the focal point rather than subject matter. The needs of the child in this instance form the basis upon which a systematization of learning is developed. What may be systematization to the teacher may not be to the pupil, and probably most of the systematization which is truly significant to the pupil is that which he gets for himself. If the pupil does not, himself, participate in the organizing of the material which he learns, he does not so readily see or appreciate the process of systematization, nor does he have an equal chance to apply his learning effectively. Though it seems especially desirable for the pupil to participate consciously in the organization of his knowledge to obtain the most from it, he can accept to advantage systematization in which he has not participated, provided he has learned the organization involved. His acceptance will benefit him in proportion to his ability to make applications of the organization he has learned.

An example of participation in a simple type of systematization is afforded by a class who are developing their own

anthology of poetry. They must read for information, choose for worthiness, and thus come to some scheme of organization which recognizes the principles of selection, the sorting of types, the bases for judgments. Thus the organization becomes a part of the learning by reason of the pupils' own discovery of its need and place.

The general shop, also, where each member of the group is pursuing a separate project, offers the opportunity for each pupil to systematize desirable procedure and in the end to systematize what he has done. At least, in the final result, he will see the totality which he has constructed or systematized. Neither of these examples needs to be dominated by the principles of traditional sequence, but the teacher will aid in desirable organization. Other examples of far more difficult systematization could be suggested by such topics as the interdependence of American institutions. In such cases the knowledge demanded will cut across several fields and will require a complete re-systematization in conformity to the stated objectives and the desired ends. Elsewhere examples of this character will be developed more fully.

Methods of Systematization. The instilling of principles and organization by acceptance rather than by participation is demonstrated by the teacher who, when a pupil asked why he made a certain operation in dividing $\frac{3}{4}$ by $\frac{5}{8}$ said, "That's the way they decided to do it." Such acceptance may or may not afford satisfaction. It has long been realized that certain unorganized or isolated facts may give satisfaction, if not immediate use or application, and may later offer important use. Other facts may not be significant at a specific time, but in the light of additional information acquired later, may become so. Immediacy of application, though it aids in defining and perfecting systematization, may not always be possible. The tendency to systematize experience or knowledge is stimulated by the realization that systematization will make a difference. The athlete tends to rely on his native physical endowment until the realization dawns that certain items of experience may be organized into a technique which will result in more skillful performance.

There are several possible general approaches to the problem of systematization. There is the method of developing the general picture of what the course, unit, subject, project,

scene, or activity is all about. Another is the more definite method of systematized progression from one segment or phase to another. There is the presentation of isolated units of learning, a method in which specific systematization is not attempted until all the units have been acquired. Another method is to encourage the pupil's initial interest through some immediate activity. This narrow beginning may soon cut across wider and wider areas of knowledge as activity and interest grow, allowing the pupil to discover the necessity for perfecting a frame into which the ever-increasing knowledge may be fitted. Systematization then becomes concurrent with the learning activities.

Measurement of learning also presents a method of systematizing knowledge. A well-designed examination, particularly following an effective period of review, may aid systematization considerably, even though the course itself was noticeably lacking in organization. On the other hand a weak or poorly-planned examination may add to the confusion of knowledge.

The so-called objective of new-type test may be charged with not furthering systematized learning. Often such tests call for nothing but isolated facts. They may indicate the degree to which the course has been systematized from a certain general approach or by a particular method, and they may aid especially in the systematization of the basic factual materials of certain courses in which the major concern is nevertheless with applications. But whatever limited use they have as measures of ability to reproduce facts, they are conspicuously weak in testing the ability to organize knowledge into wholes or into applications. The testing of applications, ability to generalize, power to organize ideas into meanings and to present them in effective form requires a much more careful design than is usually offered by the new-type tests. This broader phase of testing needs much more attention to promote effective organization and adequate systematization.

As schemes of imparting learning, all the ways mentioned have been utilized. The chief weakness has been in their isolation from each other, with failure to recognize the advantages which each possesses. The current trend would indicate the synthesis of these methods. The same trend toward combining the best of each is observable also in respect to the two

approaches, suggested earlier in the topic, to the general problem of systematization.

The Place of the Teacher in the Systematization of Knowledge. Although the most meaningful systematization may be that which the child makes for himself, the importance of the teacher's part cannot be disregarded. The limitations of the learner in arranging and interpreting activities and materials are obvious enough. Systematization is effective only to the degree that it produces attitudes, concepts, habit, skills, appreciations, meanings, and from the synthesis of all these the ability to generalize as new situations appear. How may a reasonable return of these outcomes be assured unless the learning activity of the pupil is planned and guided by a teacher who not only possesses knowledge and vision, but directs a course of learning activities or content properly and adequately designed?

Teaching which is planned to systematize the learning experiences of the pupil with preconceived objectives and with activities designed to produce certain desirable outcomes is probably far more difficult and much more significant than the habitual teaching of the past, when to know was to have memorized and to apply was to recite. It is a far cry from that to the teaching is suggested for the realization of function five. In this new light the teacher becomes himself a source of continual systematization. Broad lines of organization he has, of course, acquired. Guided by these he must constantly design and direct the learning activities of his pupils as they follow specific trends, as they must be applied to current needs, as they are adjusted to abilities and interests. Under these circumstances the teacher must be a master in the adaptation of organized knowledge and an expert in systematizing quickly and effectively all phases of the learning process. Instead of utilizing organization less, he will emphasize it far more than older teaching did.

Current Attempts in the Reorganization of Knowledge. There are now a number of examples of curriculum enterprises developing schemes of synthesization of two or more of the standardized secondary-school subjects. These attempts are more generally found in the fields of art, music, social studies and English. The Progressive Education Association,

under a special Carnegie Foundation grant, is undertaking some definite experimentation of this kind among member schools.²³

Illustrations are also afforded by public secondary schools. An unusual organization of this kind, for example, has been adopted by the McKinley High School of Honolulu.

One experiment is undertaking to rearrange the highly specialized secondary-school subjects into four or five "broad fields" of knowledge such as the fine arts, literature and languages, the social studies, the sciences. The plan calls for the organization of these fields with definite sequence and systematized continuity from year to year. Another major attempt to select broad fields of knowledge as core fields for four years of secondary school is found in Virginia, where a state curriculum has been built on this plan.²⁴ As guides for the selection and organization of knowledge and of the pupil's experiences, the major functions of learning and social life were predetermined. These were then set up as centers of interest with careful planning by executives and teachers to make them an integral part of the regular work of the school. When the curriculum is organized around the "broad fields" of learning, the emphasis is upon vertical continuity with little attention to horizontal correlation. In this respect there is definite contrast to the "cultural epoch" theory. Learned, in his Carnegie report, develops the "cultural epoch" principle of organization.²⁵

Other experiments attempt a specific approach to the pupil through his occupational or other highly specialized interest. This requires individualized progress of study. The motivating principle is the theory that effective learning proceeds only when the student is aware of the significant relation of the learning to his interests. A plan of this character is suggested by the Fieldston School of the Ethical Culture Schools of New York City. Further examples of proposed re-

²³Leigh: Report at Bennington Conference, National Progressive Education Association.

²⁴*Procedures for The Virginia State Curriculum Program*, Bulletin XV, No. 3, Richmond: State Board of Education, 1932. See also related Bulletins of the Virginia State Board of Education.

²⁵W. S. Learned: *The Nature of the Educational Process in the United States and Europe*. New York: Carnegie Foundation for the Advancement of Teaching, Bulletin, 1927, No. 20.

organization of the high school curriculum are cited in "A Challenge to Secondary Education."²⁶

IV. The Applications of Systematized Knowledge

The Significance of Applied Knowledge. The fifth function assumes that secondary education must present organized knowledge. In Issue VII of the Report of the Committee on Orientation the acceptance of this obligation is developed particularly and the necessity for the next step assumed—that secondary education should give not only an understanding but also an application of what has been learned. A study by Tyler in respect to losses in skills, interests, attitudes, and information between the time of learning and the time of use, concluded: "That highly specific information is most quickly forgotten, that information of more general application is relatively permanent, and that in the important fields of applying principles and interpreting new experiments there were no losses but a significant gain, especially in interpreting new experiments."²⁷

Since it is now generally believed that the final test of knowledge lies in the demonstration of its applications, it is reasonable to measure the degree of adequate systematization toward definite goals by measuring the degree of application. As will be pointed out in the next section, adequate functional organization will rest upon suitable recognition of the basic laws and principles and upon participation of the learner in the process of systematization. The probability of application will be greater in proportion as the knowledge acquired has become systematized by the learner himself.

Relation to Attitudes and Ideals. In Issue VIII there is developed the responsibility of secondary education for the recognition and development of attitudes and ideals. These will carry valuable directional force only if knowledge is so systematized that the desired attitudes spring naturally from it. For the emotional power of attitudes and ideals is what chiefly transforms knowledge into application, extension, and function.

²⁶Samuel Everett and others: *A Challenge to Secondary Education*. New York: D. Appleton Co., 1935.

²⁷Ralph Tyler: "Permanence of Learning." *Journal of Higher Education*. IV:204 (April, 1933).

The limitation of the factual type of instruction, in which the interest centers in the development of a certain skill or technique, must be recognized at the outset of any attempt to develop attitudes and ideals. Instead, there should be conscious recognition that every subject in the curriculum is interwoven with the affairs of men, and the objectives of the school should be to make applications constantly more significant.

On this basis, science will be so presented that pupils will understand how mankind has triumphed over natural forces and in so doing has gained freedom from superstition, prejudice, ignorance, and intolerance. From such a presentation comes the story of human development in a form that will influence attitudes, understandings, applications to knowledge and experience as they are developed. "According to this point of view, logical organization, social insight, appreciation, information, and skill all blend in the same process of learning. The distinctions represent differences of emphasis and nothing more. . . . Appreciation is the normal outcome of intellectual reconstruction. We cannot direct appreciation toward any object at will, but we can make over the object in such a way as to give it new charm."²⁸

Suggestions for Wider Ranges of Application. The desired systematization of knowledge with resulting wider ranges of application may be better understood by considering the two extremes of present secondary school philosophy and practice—on the one hand systematized abstract knowledge, on the other specific vocational training. At the one pole is the over-formulation of knowledge, at the other, over-emphasis upon strictly practical, mechanical activity. Controversy obscures the significant relation of the two extremes—the need for a synthesis of these two divergent practices. Direct concern with practical matters and with provisions for specific skills or mechanized activity, though amply justified, should not be permitted to exclude training in generalization and judgment through a background of organized knowledge.

One of the most significant applications suggested by Function V is in the interrelations of subject fields. The present organization of subjects and curricula creates par-

²⁸B. H. Bode: *Modern Educational Theories*, p. 214. New York: The Macmillan Company, 1927.

ticular difficulty in showing relations and values between courses. The organization of the school curriculum upon the basis of interwoven courses, as suggested in Issue VII would make obligatory, at least to considerable degree, the realization of Function V.

A further significant application is afforded in the development of Issue III. It may be merely emphasized here that applied knowledge is especially important in the development of leadership. The general summary of the next section offers many other suggestions.

The Place of Laws and Principles in the Systematization of Knowledge. Improvement in common life practices can scarcely be made without a careful recognition of laws and principles upon which to base any workable structure for the betterment of society. Understanding the elements basic to a good society involves recognizing the need for systematic organization of ideas and practices. Improvement of these ideas and practices requires wider application and increasing extension of the knowledge required.

The Imperative Need for Laws and Principles. Obviously, for whatever organization is attempted, there must be a starting point. Systematic knowledge is organized from certain basic laws or principles; and these offer the fullest opportunity not only for the largest understanding and appreciation of the knowledge involved, but for sufficient application as well. There is need for laws and principles, whether it be in a certain field of knowledge, a particular course of study, a specialized activity, or in the organization of the whole of knowledge or the learning process itself. Without a background of organized knowledge, a person may operate complicated machinery after slight training, but eventually when trouble arises or reconstruction is necessary, a knowledge of principles becomes essential. More significant to the individual than mere mechanical efficiency are the possibilities for appreciation, satisfaction, and wider applications, which increase with the possession of systematic knowledge explanatory of the thing being done or of the way the new situation develops.

The higher the form of education, the more significant become the laws, principles, and underlying philosophy. Ob-

vious though this fact is there has been no corresponding recognition in secondary education of the necessity for adequately relating principles to their possible application. As a consequence, students may not appreciate their significance. This flaw in secondary education is revealed by the usual failure of students to acquire knowledge sufficiently understood and vitalized to induce independent and habitual extension. Secondary and higher education have failed particularly to create a functional vitality which carries the individual past the point where schooling stops.

The Laws of Learning as Primary Guides to Organization.

At the very base of the learning process, educative efforts have been particularly weak through failing to utilize certain highly important fundamentals—the psychologically established laws of learning. Too many methods of presentation have promoted learning only to forget, whereas general principles are the last things to be forgotten. If the principles taught are really helpful and are acquired in the best way, there can be little question of their vitality.

That the recognized laws of learning should influence the organization and systematization of knowledge seems sufficiently obvious, yet such principles, as established by scientific research, have not been adequately utilized. The simple law of "use" based on the fundamental that "practice aids response," probably deserves a more equitable recognition in our curriculum procedure. The reciprocal of use is the law of "disuse". "This is the principle which underlies forgetting."²⁰ Experiments indicate that disorganized and nonsensical material is forgotten sooner than systematized and sensible material. The law of "effect", the third of the three primary laws of learning, stresses responses which are satisfactory to the learner. The pupil who likes the material used learns rapidly and tends to repeat the process learned with increasing satisfaction and skill. The child who does not respond to certain material avoids it. The degree of personal satisfaction achieved while the process is going forward determines largely whether the pupil successfully systematizes knowledge for himself or at least acquires satisfactory forms of knowledge systematized by others.

²⁰A. R. Gilliland, J. B. Morgan, S. N. Stevens: *General Psychology for Professional Students*, Boston: D. C. Heath and Co., 1930.

Three secondary laws of learning deserve more attention as basic to our curriculum organization. They are: the law of "primacy", which states that first experiences are more strongly retained; the law of "recency", which means that immediate or recent experiences are better retained than remote ones; and the law of "vividness", asserting that the more vivid the experiences, the more likely to be retained. Gestalt psychology emphasizes the significance of discovery, first experiences, as essential to learning. "Learning must come about by way of creative work. When drill methods are employed the child learns through making discoveries if he learns at all, but his progress is retarded."³⁰

Much of the established organization of knowledge rests on the assumption that continued repetition, the so-called drill process, of itself assures learning. "So far as I can now see, the repetition of a situation may change a man as little as the repetition of a message over a wire changes the wire. In and of itself, it may teach him as little as the message teaches the switchboard."³¹ This illustrates the important relation of meaning to practice. If drill is to be significant, the pupil must understand what it is all about and to some extent be able to apply the principles involved. There are many variations of the learning process which need not be a part of this attempt to suggest basic considerations and fundamental laws and principles.

Application of the Principle of Reasoning. An important principle to be stressed is the development of power in reasoning or thinking, a principle that should be carried throughout the organization of knowledge. The importance of developing the ability to think scientifically is currently much emphasized. Loomis reports that though most science courses especially indicate scientific thinking as an aim, most science teachers are unable to suggest an organization of material that will realize the aim.³² If the aim is legitimate, then the material should be so closely interwoven with the aim as to insure at-

³⁰R. H. Wheeler and F. T. Perkins: *Principles of Mental Development*, pp. 118-21, New York: T. Y. Crowell Co., 1932.

³¹E. L. Thorndike: *Human Learning*, pp. 10, 14. New York: The Century Co., 1931.

³²A. K. Loomis: "Recent Trends in the Secondary-School Curriculum." *Bulletin of the Department of Secondary-School Principals*, No. 40, pp. 94-107 (March, 1932).

tainment. This principle is obviously applicable not only to science, but to the organization of all subject matter and all learning activities. Unless knowledge is so organized that it stimulates applications, the basic principle of educative achievement through thinking fails. "In a word, the concern of education is not with strengthening of mental faculties, nor with acquisition and organization of information, nor yet with the formation of S-R bonds, but with the cultivation of thinking. For the power to think is the educational kingdom of heaven; if we seek it persistently, other things will be added unto us. Thinking means flexibility of habit; it means a dominating purpose which achieves its realization by a reconstruction or reorganization of previous experience."³³

The Use of Meanings. True systematization will recognize the principle, nature, and function of meanings because meanings are the tools of thinking. Meanings are the varyig elements which may be observed, recognized, understood, and felt by the individual respecting a certain situation. What form these meanings take, how they may influence the individual's thought or action, depends upon how they may be associated with past experience. In other words, how many of them have been learned? To what extent have they been applied? Has any organization been developed? How well the individual meets the new situation will be determined by the answers to these questions. The acquisition and organization of meanings in this light become vastly important as a chief concern of education. It formulates a fundamental principle.

There is a sense in which we can say that the whole of education centers on the development of concepts. If a person leaves school with adequate conceptions of government, force, energy, heredity, patriotism and the like, he is an educated person. A proper development provided both the tools for later thinking and exercise in their use.³⁴

³³B. H. Bode: *Conflicting Psychologies of Learning*, pp. 273-74. Boston: D. C. Heath and Co., 1929.

³⁴*Ibid.*, p. 252.

V. Obstacles Which Limit Systematization and Application of Knowledge

Conflicting Theories of Learning and Curriculum Organization. Much of our educational uncertainty springs from conflicting theories of education, which limit the systematization of knowledge on new bases. Ample evidence of this confusion appears even in the issues that secondary education alone faces. We are merely beginning to view our traditional, old-world conceptions of adequately systematized education in their relations to the problem of life in a democracy. In the main our educational theories and culture have been kept apart from everyday affairs. The classical heritage has been considered more significant educationally than the social studies or applied science.

At the other extreme has developed the theory of individual differences with freedom of the individual through development of his interests and capacities. This conception has introduced a tendency to value the new for its newness and to over-develop specialized forms or projects.

There remains, too, the belief that "Education is primarily for adult life, not for child life. Its fundamental responsibility is to prepare for the fifty years of adulthood, not for the twenty years of childhood and youth."³⁵ Opposed is the doctrine which centers all educational efforts about the child. In one is the danger of sentimentality which may let the child's education be self-determined; in the other is the futility of assuming a static world.

Those who defy pupil participation and self activity, along with catch-phrasing practicality, to the extreme of superficiality, with little or no realization of logical systematization, take issue with the reactionaries who are skeptical of all innovations designed to arouse pupils' interest or promote social effectiveness.

Part of this confusion resolves itself into a controversy over the logical organization of subject matter of the psychological organization of the curriculum. The one supports a logical organization of knowledge showing the relation of cause and effect, of premise and conclusion. The other presents the

³⁵F. Bobbitt: *How to Make a Curriculum*, p. 8. Boston: Houghton, Mifflin Co., 1924.

pupil as the center around which the educational process is organized. There is the contention that "organization exists prior to and independent of, any learning and that it is the work of education to get the learner to appropriate this already waiting organization."

Opposed is the theory that organization is of little, if any, value in itself, but is merely made artificially for the varying purposes of men, and that the only systematization which is effective educationally is that which the learner makes for himself.

The Theory of Subject Matter Organization. Why is belief maintained in the subject-matter type of organization of learning? Perhaps an attempt to answer this question briefly will clarify the issue. The established subject matter is held to be the refined and clarified result of man's total experience, the accumulated heritage of all his efforts. Here is contained in each subject the truly significant and necessary content. Mastery of subjects, it is believed, will give the systematization of learning which not only maintains culture but gives the individual the power to make the necessary applications for an enriched and successful life. There are many who support these tenets with convincing arguments.³⁶

The subject curriculum is defended as logically organized and as the surest way of preventing waste and confusion in both learning and teaching. It is by studying organized subject matter that the learner acquires, in the end, the organized and systematized view of the whole of knowledge which is essential to the achievement of culture. Systematized learning acquired through the subject curriculum is basic to the development of the broad retentive powers necessary to continual pursuit of knowledge and to extended applications and interpretations. The background of organized knowledge acquired only through a study of isolated and highly organized subjects is necessary for the analysis, evaluation, and classification of new knowledge. The well-balanced mind, attained through the practice of systematizing values and weighing the results of organized thinking, is essential to the selection of purposeful activities if educative efforts are to yield results

³⁶C. H. Judd: "Supplementary Statement," *Twenty-sixth Yearbook*, Part II, p. 113. National Society for the Study of Education, Bloomington: Public School Publishing Co., 1926.

commensurate with the time and effort expended. The influences and practices which eventually determine judgment and discrimination are not only constructed but made to function by the systematization which comes from organized subject matter.

The Theory of Activity Organization. There is no such unanimity of opinion in interpreting the curriculum organized through activities. This newer conception of organized learning has neither age nor tradition to crystallize it. Leading exponents of the activity thesis, although differing on ways and means, agree in emphasizing the child, not the subject, as the focal point of organization. Some interpreters of the activity thesis see it as a way of giving purpose and interest to formal subject matter. Others consider it an organization of consecutive experiences created and determined by the spontaneous or natural interests of the learners. Between these two extremes are those who regard the activity curriculum as an individual development through a series of realized true experiences. These are neither accidental nor spontaneous but the result of a designed constructive attempt to obtain maximum educational development. This last interpretation cannot ignore subject matter. The terms which define this position suggest the recognition and use of organized content, but the learner is dominant from beginning to end and the subject matter is merely a convenient tool at any stage of the process.

These differences in educational theory are even more active in the specialized field of psychology. The net result of all these differences is that the reorganization of the school cannot go forward at a rate suitable to the constantly changing conditions of human affairs, until there is larger agreement as to the directions the changes should take. Certainly there are values in all these contradictory considerations, although their relative importance varies considerably. The essential is to determine which way progress is to go. Mere change is not enough.

Limited Possibilities for Extension with the High-School Population. It has already been indicated that the extension of this function to any considerable proportion of the high-school enrollment will be qualified by the factor of intelligence. The intellectual equipment necessary for continued achievement in the field of systematic knowledge is not only the mental ca-

capacity for acquiring additional learning, but the ability to synthesize the knowledge already possessed. If progress depends upon increasing the depth, as well as the breadth, of the thought processes, considerable skepticism about reaching large numbers of persons may be justified.³⁷

The Indiana and Massachusetts studies³⁸ of high-school seniors, the Pennsylvania study³⁹ and similar investigations within groups of schools and within individual schools offer evidence of the large number of pupils who are not equipped to pursue studies which involve abstract and highly systematized knowledge. For example, certain subjects seem specially suited to those who possess the ability to follow abstractions and who succeed best with highly systematized material. The returns of the Latin investigation indicate that in a subject of this character the real problem "is to determine who should study Latin, rather than to make it worth while for those who do not need it."⁴⁰

What is known about the ability to learn is more definite and certain regarding the field of systematic knowledge than elsewhere. There is the somewhat extreme statement of Terman that "an individual is intelligent in proportion as he is able to carry on abstract thinking," which supports the belief that ability to continue in systematic study belongs to few.⁴¹ Less is known about other types of intelligence or "other mental traits," as Terman would say, which contribute to success in operating a machine, farming, merchandizing, or other concrete daily realities. Even less accurately understood are the emotional responses which often affect greatly the success or failure of the individual in making a place in the world. Teachers will not forget that too little is known about what it is that makes men successful, although it has been rather well established that "given levels of intelligence are clearly requisites

³⁷W. L. Uhl: *Principles of Secondary Education*, p. 42. New York: Silver Burdett Company, 1925.

³⁸W. F. Book: *The Intelligence of High-School Seniors*. New York: The Macmillan Company, 1922.

³⁹Study of Relations of Secondary and Higher Schools in Pennsylvania. See the various *Progress Reports*. Carnegie Foundation for the Advancement of Teaching, New York.

⁴⁰Department of Superintendence: *Development of the High-School Curriculum*. Sixth Yearbook of the Department of Superintendence of the National Education Association, Washington, 1928.

⁴¹L. M. Terman: *The Measurement of Intelligence*, p. 81. Boston: Houghton, Mifflin Co., 1916.

for given levels of performance."⁴² The pursuit of systematized knowledge with development of steadily widening ranges of application is qualified in the end by the intelligence of the student. Evidence now obtainable as to the intellectual ability of students and their accomplishments in school indicates that only for those who are mentally superior will the values of abstract systematized knowledge extend very far.

The degree of profit in pursuing any systematized knowledge depends also upon the character of the subject-matter pursued. Some subjects offer greater difficulties than others, judging by the proportion of failure and granting that certain subjects through prestige or tradition attract the more intelligent students. It has been established in certain subjects noted for their difficulty, such as algebra, that the pupils who fail compare unfavorably in intelligence with those who pass, as reflected by their records in other subjects as well.

A not inconsiderable portion of normal adolescents may profitably attempt to realize the purposes of Function V. These will profit to the degree that the systematization of the knowledge learned is suited to their capacity, needs, and interests. It must be recognized that the so-called natural students are relatively few; that those who are seeking and able to recognize the systematization within knowledge are fewer; and that those able to understand and interpret the relationships of the various fields of organized learning are even fewer.

Possibilities for the Reduction of These Limitations. The problem of the orientation of knowledge as applied to the individual pupil is comparatively new. A certain expertness has been achieved in organizing specific subjects or fields, but, as yet, skill in the synthesis of fields or in the organization of experience is somewhat crude. It is reasonable to hope, however, that as organized knowledge is enriched and vitalized by the larger emphasis and clearer presentation of its meanings and uses, there may be a proportionate increase in the number of students who may profit by the pursuit of systematized knowledge. Advance in remedial practices and improvement in methods of guidance may also slightly increase the number who may benefit from further attempts in the field of systematized learning. Now that enrollment in secondary schools is

⁴²W. A. Smith: *Secondary Education in the United States*, pp. 175-180. New York: The Macmillan Co., 1932.

approaching what seems to be a saturation point, it may be hoped that schools will be able to give more time to refining the curriculum to these ends. In recent years the chief effort has necessarily gone into hasty and inadequate provision for ever increasing numbers.

If learning is most effective when it is "organized into a system that shows the relation and values of each to many others," then greater effort in the extension of this function to a larger number of pupils seems the reasonable obligation of the secondary school. It appears, also, to be a problem distinctly of the secondary school, as the nature of the elementary school work in this direction must have obvious limitations.

Much of the possible application of this function to Issue I, for example, will probably be in the realm of appreciation, understanding, and enjoyment, with the attempt to extend gradually the possibilities for the larger realization of these elements rather than to achieve technical mastery. Obviously, other special functions will offer the opportunities for those pupils who do not fit into the implications of Function V; and it is all the functions working together that will justify a plan of secondary education offered at public expense to all normal adolescents.

The Limitations of Science. In a previous topic, the existing confusion between pure science and applied science was pointed out, and the need was noted for systematizing the knowledge of these two fields. This confusion is obviously an obstacle of systematization, but it is only one phase of the limitations imposed by science. Certain limitations are presented by Counts:

"The basic limitation of all science is that of incompleteness. Science has as its object the discovery of truth, but . . . the unknown will always exist beyond the limits of the known. . . . Consequently, in so far as men must deal with the total of reality, they will always have to be guided at certain points by something less than exact knowledge. Call them guesses, hypotheses, or what you will, the guidance which they can furnish is far from trustworthy and intelligent men will exhibit honest disagreements. In the field of curriculum-making, because of the immature status of the foundation sciences of psychology and sociology, we are forced today, even in dealing with many of the more elementary problems, to resort

to the most crude speculation. This situation can only be improved as the science of human society is developed. But this fact does not justify an attitude of indifference towards the complete utilization of the available knowledge. Whatever may be the current status of the science of education and its auxiliaries, they must always be employed to the utmost in curriculum-construction.

. . . "Disagreements are likely to persist because the science of education is an applied science. Every science that touches human welfare, and this means all applied sciences, is circumscribed by some conception of welfare. Within this area and under the given assumptions, individuals will be forced to agree according to the measure of exact knowledge available. But even the engineer is unable to determine how many bridges should be constructed unless certain limiting conditions and unqualifying purposes are given him. Science is an instrument and may be used in achieving the most diverse ends. Chemistry may be employed in producing foods or poisons, in conserving or destroying human life. Knowledge of the learning process may be devoted to purposes equally at variance."⁴³

Although science may not be able to solve completely the great problem of what knowledge is to be organized or how, it can and does point the way to methods of selection and to technique of organization. It indicates clearly, as well, that systematization of knowledge is necessarily a continuous process to be aided by scientific discovery and application.

Limitations Arising from Inadequate Preparation of Teachers. One limitation which has influenced the extent and character of the organization of learning has been the inadequate training of supervisors and teachers. How well pupils get started in a field of knowledge and how far they continue is often determined by the personality and the equipment of the teacher. The majority of teachers now in the field have, it is reasonable to assume, received training in the older conceptions of the organization of knowledge, especially in respect to narrowly specialized subject content and psychological meanings which support formal organization. The conception that knowledge should be organized, first of all, in respect to modern principles; and that, in the same process, it should also be

⁴³G. S. Counts: "Some Notes on the Foundations of Curriculum-Making." *Twenty-sixth Yearbook*, Part II, pp. 88-89. National Society for the Study of Education. Bloomington: Public School Publishing Co., 1926.

peculiarly systematized to the suitability of the individual pupil with special provision for wider ranges of application has not been as yet widely accepted. The rapidity of progress of these newer concepts relative to the organization and application of knowledge will depend largely on the in-service professional improvement of teachers already in the field plus the degree to which teacher-training institutions supply leadership and new teacher-personnel to the secondary schools.

Limitations Imposed by College and Vocational Preparation. Another limitation is afforded by the large recognition of preparation for college with emphasis upon isolation of knowledge into narrowly limited units, although at the same time requiring systematization within such units. This well-known situation has particularly interfered with the development of relationships between fields of knowledge and has definitely restricted the development of applications. Despite this general situation there has recently been a marked change in the attitude of the hitherto conservative College Entrance Examination Board. This Board has developed a revolutionary interest in new organizations of knowledge. One report has proposed the systematization of history and social studies into a sequential four-year synthesis of the social evolution of man. Another report recommends the synthesis of all science courses in a four-year continuity.⁴⁴ The Regional Associations are also coöperating in a consideration of standards which give promise of affecting subject-matter. The North Central Association has granted extensive flexibility in respect to experimentation in the organization and application of both methods and materials. Apparently the college preparatory limitation may be largely changed in the immediate future.

The urge for early vocational efficiency and placement has also narrowed the conception of education. The attempt to provide skill quickly to meet an economic demand has emphasized technique and mechanical achievement at the expense of laws and principles. There has been little time, in such instances, for systematized knowledge.

⁴⁴College Entrance Examination Board, *Bulletins and Announcements*, New York, 1934-35.

VI. Suggestions for Making Function Five Effective

The secondary school, if it is to realize functional opportunities, must place in operation the administrative devices, the curriculum organization, and the instructional methods which will insure progress in the direction required. Efforts must be linked to specific objectives which may be consciously applied to the daily procedure within the school. A partial list of suggestions of this nature follows:

A. General Recognition and Applications—

1. Administrative leaders who are interested not only in studying the possibilities of the functional school but in developing understanding of the underlying philosophy of this particular function and of what its realization involves.

2. A faculty personnel which will manifest more than a casual interest and which will make a sincere effort at realization.

3. A planned coöperative attack of administration and teachers upon the various problems involved.

B. Specific Recognition and Applications from an Administrative Point of View—

1. Recognition of the knowledge acquired (a) through adequate testing, (b) by organization of a continuity which ties smoothly into the knowledge next in presentation, (c) by adjustment of the immediate material to the capacity of the learner for reflective thinking, (d) by application of the knowledge possessed to the immediate interests and needs which are to inspire continued effort.

2. Definite efforts to show the significance of the knowledge acquired (a) by appeal to special interests and abilities, (b) by adjustment to capacity for learning, (c) by concrete application to immediate and future values, (d) by development of an understanding of the ways in which particular knowledge has effected the accomplishment of individuals and the race, (e) by showing the general and specific potentialities of the material studied, with particular reference to the betterment of society and the growth of the individual, (f) by emphasis upon acquiring insight so that new observations may be made and old observations reconstructed in the light of

ever-increasing understanding of causes and effects, (g) by realization that content systematically organized offers larger possibilities for functionally efficient training than does material which is weak or lacking in organization.

3. Establishment of consciousness of the underlying causes which resulted in the discovery and application of laws and principles (a) through an appreciation of the manner in which the formulation of underlying principles resulted from making things work, (b) through an understanding of the fact that progress to higher levels of thinking, discovery, the extension of knowledge, and the application of knowledge to accomplishment are dependent upon understanding of the basic forces

4. Experimentation designed to clarify method so that laws and principles may be best understood and appreciated.

5. Insistence upon the mastery of the tools of knowledge in order that progress into systematic knowledge may be reasonably direct and profitable, at the same time recognizing (a) that the efforts of the elementary school may require supplementation, (b) that remedial procedures should be utilized to assure at least the minimum of mastery, (c) that due attention be given to (1) the rate and comprehension of silent reading, (2) vocabulary, (3) use of library and supplementary techniques, (4) oral, written and graphic expression.

6. Emphasis upon training in using organized earlier experience to suggest interpretations of a new situation.

7. Development of the ability to analyze and systematize, so that the learner may separate a whole into its constituent parts or assemble parts into a complete whole.

8. Inculcation of a scientific attitude and of skill in the scientific method of thought and its application (a) with the realization that reflective thought may not be equally stimulated or developed in all fields, (b) with the understanding that certain combinations of subject matter and method operate on the process of thinking with varying degrees of success in different fields of knowledge.

9. Training in the application of knowledge, to the degree that independent and habitual additions will continue to be made beyond the provision of formal schemes of education.

10. Recognition that the quality and quantity of systematized knowledge and the power to develop wide applications

should differ greatly in courses designed for pupils of varying degrees of ability.

11. Recognition of the desirability of homogeneous grouping of those who possess the intellectual capacity to go far in acquiring and applying systematized knowledge.

12. Realization that courses such as foreign languages, higher mathematics, and abstract science, offering content that leads to specialized careers, are by their nature restricted to the relatively few, as the proportion of persons actually working in such specialized occupations is small.

13. Realization that the educational value in highly specialized material is largely dependent upon the degree of mastery attained.

14. Especial care in applying systematic knowledge to specialized skills so that the emphasis will not be greater than the possible return.

FRANCIS L. BACON.

FUNCTION VI

To establish and to develop interests in the major fields of human activity as means to happiness, to social progress, and to continued growth.

The treatment of this Function was originally outlined in considerable detail by Dr. Francis T. Spauling. Because pressure of other duties made it difficult for Dr. Spaulding to prepare a full discussion based on his outline, responsibility for writing such a discussion was delegated to Mr. Paul Diederich, who has served as secretary to the Committee. The paper submitted by Mr. Diederich and the outline prepared by Dr. Spaulding differ markedly in their treatment of the Function. Both treatments are therefore presented.

INTRODUCTORY SUMMARY

Interests are the dynamics of education; in a broad sense they are the moving forces of life itself. Every intelligent educator makes them his silent allies in the work of educating children. He knows that interests are necessary to motivate learning and to vitalize it. Interests are equally important outside the classroom. They are indispensable means to happiness at all times and in all places. Without them the individual cannot grow, nor a society of individuals progress. Both for the sake of education itself and for the welfare of the supporting public, the establishment and development in pupils of interests in the major fields of human activity is a legitimate, not to say a paramount, function of the secondary school.

Interests grow out of human needs and endure by proving their power to contribute to the satisfaction of our wants. Therefore as their relationship to needs becomes clearer in the mind, as they become more consistent, more attainable, more social, and more inclusive, they exercise a more beneficent influence upon the individual, enrich his education, and fructify in his living. Interests should be recruited from all areas of human activity—from work, home life, play, politics,

religion, the community, and the world of leisure—for the virtue of the educated individual is that he can derive values from a great variety of activities rather than from a few.

This recruiting of interests is obviously a gigantic task, but the school, very fortunately, does not have to start from nothing. Home and community influences awaken the interest of pupils in the most important fields of human activity. It is the work of the school to extend, develop, and re-direct these interests in such a way that a pupil grows continuously and harmoniously in his power to live fully and well.

If secondary schools commit themselves to the extension, development and re-direction of a pupil's interests, they will, of course, come face to face with new problems or with old ones in new form. By what means, for example, can interests be extended, developed, and re-directed, and how can progress toward this objective be estimated? There is no ready-made solution to the problem, but the more progressive schools, working on the fundamental principle that a pupil must first be led to express his interests and make them accessible to the school and to himself, are developing practices which hold promise. Once brought out into the open and embodied in written record or in some tangible accomplishment, interests cease to be vague longings but assume a substance and meaning which can be enlarged, refined, reformulated, even measured. The pupil and his counselor can then plan confidently a definite program by which the pupils interests can be strengthened.

Every resource of the school should be utilized to this end. This immediately raises the question of how the curriculum of the school can best be organized to favor the pursuit and re-direction of interests. Changes in curricular organization now in progress offer clues to an ultimate program conducive to the establishment of interests at the same time that other educational values are conserved. Many school systems have successfully introduced into the junior high-school grades an integrated course of the "practical problems" type which bring pupils and teachers together for a coöperative venture in making pupils interested, competent, and intellectually at home in each important phase of their present and probable future activities. In the senior high-school this course merges into a related course built around the major common interests de-

veloped in the lower grades and aiming at refining them until each can serve as the integrating core or center for a program of increasing specialization suited to the pupil as he approaches the end of his secondary-school career.

Courses designed to cultivate interests cannot be inserted into the curriculum without overcrowding a pupil's schedule unless the burden of traditional subject matter carried is lightened. It is therefore suggested that elective courses be restricted to two periods daily and that this restriction be governed by the contribution which the established courses make to a development of a pupil's interests. It is highly probable that in such circumstances a great expansion will take place in courses in the arts and in the natural sciences and that the time devoted to the formal study of mathematics, foreign languages, and English will decline.

Some critics will doubtless oppose these shifts, attributing them to whim or caprice and warning against a further loss of values in the educational program. This is a mistaken fear, unmindful of ultimate values. The satisfaction of human needs, the continued growth and happiness of the individual, and the progress of society depend upon the cultivation of interests. If the secondary school neglects them, it does so at its own and society's risk.

OUTLINE PREPARED BY F. T. SPAULDING

- I. The distinction between Function VI and Functions III and IV:
 - A. Whereas Functions III and IV are concerned with the direction of the pupil into increasingly specialized fields of socially useful activity,
 - B. Function VI looks toward the awakening of active interests in matters which go beyond the narrow limits of clearly foreseen individual and social utility or

*This function as approved by the Committee read: "To establish and develop in all major fields of knowledge, not merely in a few protected subjects, interests that are numerous, varied, and as deep as possible, and to direct some of these by means of differentiated courses to ends most worth while for each individual, the hope being that they will lead on to a continued education both in higher institutions and outside of any formal school." Another development of the idea of interests as liberal education will be found in Briggs's *Secondary Education*, pages 478-552.

"need", as a means of developing a liberally educated individual.

II. The justification for devoting public funds to a type of education which looks beyond immediate utility or need:

A. Continued learning on the part of the individual is essential in order

1. That the individual may adapt himself to changing demands and opportunities, and may make the most of his individual capacities.
2. That society may benefit from new ideas and new attacks on old problems.

B. Continued learning on the part of the individual may add greatly to the richness of living which it makes possible for the individual, and hence to his happiness, irrespective of its contribution to the general good.

C. Formal schooling furnishes the most advantageous starting point for continued learning, through the arousal of active interests.

1. Interests represent the mainspring of the drive toward further learning on the part of the individual.
2. The quality of an interest is that it leads to "doing-something-about" the matter to which it attaches.

D. From the standpoint both of social good and of individual good, therefore, the school is justified in devoting itself in part to the definite task of arousing certain active interests in each individual.

III. The need for the development of interests which will cover "all major fields of knowledge"; implications for the organization of the program of studies.

A. The need for the development of interests which will cover "all major fields of knowledge" rests,

1. From the standpoint of society,
 - a. On the importance of stimulating progress through leadership in all possible fields. To stimulate interests only in a few protected areas would tend seriously to prejudice social progress.

- b. On the importance of "appreciative" interests as the basis for active and intelligent followership. Here also the development of interests in protected areas would tend to limit or prevent progress which might otherwise be achievable.
 - 2. From the standpoint of the individual,
 - a. On the value of competition among interests as a basis for the selection of specific interests to be especially fostered.
 - b. On the contribution of widely varied interests to the individual's recreation and refreshment.
 - c. On the value of varied interests as contributing to the individual's adaptability. At this point in particular the danger to the individual of restricting his interests to a few protected areas closely parallels the corresponding danger to society.
- B. What should be the "major fields of knowledge" in which interests are to be developed?
 - 1. One answer to this question is to be found in the Committee's resolution of Issue VII. In terms of the fundamental categories there defined, the school must seek to develop each pupil's active interest in
 - a. Social studies and activities, including much of the content now thought of as English, as well as the content of the social studies.
 - b. The use and management of society's environment, through the application of the physical and biological sciences.
 - c. Play, health, and physical recreation.
 - 2. Whatever the fundamental categories under which school experiences are classified, every school must recognize its obligation
 - a. To develop in each of its pupils interests sufficiently diverse to be representative of four general types:
 - (1) Intellectual interests

- (2) Interests in manual or manipulative activities or in other types of physical activities
 - (3) Interests in social activities
 - (4) Aesthetic interests
 - b. To attach these interests to activities which pupils can, and will, eventually carry on independently of the school.
- IV. The possibility of establishing and developing, in pupils in general, such interests as are called for in the statement of this function.
- A. The theoretical possibility of developing an individual's interest in a given field is limited only by the individual's ability to comprehend that field: what an individual can learn he can learn to be interested in.
 - B. As obstacles to the practical development of interests must be recognized, however,
 - 1. Present limitations on our knowledge concerning the psychology of interests, and lack of objective measures of the nature or intensity of specific interests.
 - 2. The traditional neglect of interests by the school.
 - 3. The common confusion of temporary or superficial amusement with interest.
 - 4. The present scarcity of teachers whose own interests are sufficiently broad and deep to carry the contagion which seems to play an essential part in the development of interests in the learner.
 - 5. The present paucity of materials appropriate for school use in the development of varied interests.
- V. Major factors in the development of interests; implications as to desirable methods of teaching.*
- A. Major factors in the development of interests comprise

*On this topic see Hayward, F. H.: *The Lesson in Appreciation* (New York: The Macmillan Company, 1925) and Briggs, T. H.: *Secondary Education*, chapters XXIV-XXVIII (New York: The Macmillan Company, 1933). These two books together present the most comprehensive discussion now available of effective methods of developing active interests on the part of adolescent boys and girls. Hayward's discussion

1. Contagion
2. Respect and sympathy on the part of the teacher for an interest in the making; alertness on the part of the teacher to recognize such an interest.
3. The teacher's resourcefulness in providing
 - a. Further challenges to a developing interest.
 - b. Experience through which an interest may be at the same time satisfied and further developed.
4. The teacher's resourcefulness in "setting the stage" to awaken interests not already present.

B. Implications as to teaching method.

1. Interests are made, not born.
 - a. There is no such thing as a "spontaneous" interest.
 - b. Within the limits of his ability to comprehend, anyone can conceivably be made interested in anything.
2. Interests arise only inductively; they cannot be "taught" deductively.
 - a. When a person becomes interested in any specified type of activity, he does so because
 - (1) His first experience with that activity has something in common with other experiences that he has already found enjoyable.
 - (2) Succeeding experiences with the activity in question reveal new elements with which he associates the favorable response.
 - b. Interests can be neither aroused nor repressed by mere preaching.

emphasizes the development of somewhat "classical" standards of appreciation in the fields of literature, art, and music; Hayward advocates a teaching technique modeled closely on the Herbartian development lesson. Briggs discusses the genesis and development of interests in many other fields than those traditionally regarded as "aesthetic," emphasizing the informal encouragement of interests through methods of teaching centering in the relationship between the teacher and the individual pupil. The methods set forth in both these books are likely to prove fruitful in the hands of any teacher who regards them as suggestive rather than prescriptive, and who is himself actively interested in discovering, stimulating, and guiding his pupils' interests.

- c. A teacher will seldom succeed in an attempt to develop an interest which he himself does not feel keenly.
 - 3. Interests are likely to continue to develop in proportion to the chance which their possessor finds to exercise them. This means that
 - a. Interests attaching to certain *phases* of a subject are usually more valuable than interests merely in *topics* within that subject.
 - b. Interests associated with normal activities are more likely to grow than are interests in abstract or remote activities.
 - 4. The development of positive interests is commonly a stronger deterrent to undesirable activities than is the fostering of negative interests, provided that the exercise of the positive interests in itself prevents the undesirable activities.
- VI. When should the school cease to seek the development of interests in "all" fields and concentrate on a few? Probably three factors should enter to determine the answer to this question in the case of any individual pupil:
- A. The pupil's probable length of stay in school.
 - 1. Time must be allowed for developing the pupil's interests in his field of specialization sufficiently to make that field stand out in terms not merely
 - a. Of his special competence in it, but
 - b. Of his strong and deep interest in it.
 - 2. Hence, the beginning of specialization in interests should ordinarily coincide with the beginning of the development of specialized competence.
 - B. The nature of the pupil's specialization. The narrower the range of activities (and hence of interests) which the pupil's field of specialization permits, the greater the desirability of developing a variety of interests in other directions.
 - C. The pupil's individual predilections (and, conversely, the pupil's individual distastes).

1. The school should recognize that since interests are products of learning, they are subject to change if change seems desirable.
 2. But at the same time the school cannot afford to ignore or to thwart the direction of a pupil's unguided growth unless such a course seems necessary in the realization of some important educational function.
- VII. How can this function be put into practical effect? The school's responsibility for the development of interests places obligations not merely on teachers, but on administrative officers as well.
- A. The obligations of teachers may be briefly summarized as follows:
1. Adopt in all teaching—curricular and extra-curricular, and teaching dealing with non-aesthetic subject matter as well as with music, art, and literature—the techniques which promise in largest possible measure to arouse, strengthen, and broaden pupil's interests. Do not depend on interests which pupils already possess to determine the goals or the scope of teaching; use such interests as one starting-point for teaching, but undertake definite responsibility for arousing new interests, and for strengthening and extending those already present.
 2. Relate the work of every course to the normal out-of-school activities with which the course deals, through excursions to observe those activities under normal conditions, through talks to pupils by persons engaged in such activities, and the like. Do not allow any course to become restricted to the study merely of such subject matter as can be reproduced in the classroom.
 3. Encourage outside activities related to each course—home shops, independent reading, summer projects, and the like.
 4. Gauge the effectiveness of teaching in part by what pupils do "on their own"; if possible, devise

tests to this end, measuring deferred as well as immediate outcomes. Do not allow pupils' success in any course to be measured solely on terms of exercises which they perform or demand.

B. The obligations of administrators are as follows:

1. Introduce survey courses covering all major fields, and require these courses as a basis for subsequent elections, instead of expecting pupils to choose elective courses on the basis of a mere description of their content and possible value.
2. Establish as a primary objective of every course, and as one test of the effectiveness of every course, that pupils shall want more of it. In survey courses especially, recognize it as the purpose of each course to foster pupils' interests in the types of study dealt with, as well as to try out pupils' abilities or aptitudes in such study.
3. Encourage a wide distribution of pupils' extra-curricular activities; develop an extra-curricular program which will make possible the satisfaction and the stimulation of a great variety of interests. Judge the effectiveness of such a program not so much by the numbers engaging in it, as by the numbers engaging in it *voluntarily and at times when they are free to take up other activities*.
4. In providing guidance, emphasize the opportunities for further informal as well as formal education. Recognize pupils' interests as a valid and important basis for both educational and vocational guidance; do not let ability and previous achievement alone be made the deciding factors.

F. T. SPAULDING.

EXPOSITION OF THE FUNCTION BY PAUL DIEDERICH

I. The Role of Interests in Education

Definition. Functions III, IV, VI, and VIII are all closely related to one another. In making clear the position of Function VI among them it may be helpful to re-state the central idea of each of these Functions, disregarding accessory ideas, as follows:

- III. Revelation of the racial heritage.
- IV. Exploration of aptitudes, capacities, and interests as a prelude to specialization.
- VI. Development of interests in many fields without reference to specialization.
- VII. Guidance on the basis of IV and VI.
- VIII. Differentiated education based on IV, VI, and VII.

Function VI may be confused most easily with Functions III and IV. Function III, however, has to do with acquaintance and understanding, a necessary foundation for interests, but not to be confused with them; while Function IV looks toward the cultivation of a few major interests as a field of specialization. Function VI, on the other hand, seeks to establish and to develop interests in many fields for the purpose of developing a many-sided, liberally educated individual.

Justification. Is this a legitimate function of secondary education? Can we justify the collection of taxes in good times and bad for the specific purpose of establishing interests in all our citizens, regardless of race, economic status, or opportunities for cultural development, in all the arts and crafts, in science and scholarship, in sports, games, and hobbies, and in all forms of social intercourse? What return will such education bring to the society which sponsors it?

Popular Support. The mere fact of popular support for education which seeks the cultivation of interests must be discounted. It is based in part upon the hope that participation in the type of education which has long been associated with the privileged classes will lead to membership in the privileged classes. The people came to believe that a college education was necessary in order to become eligible for a really handsome

salary, so they demanded the type of secondary education which would prepare one for the only type of college education then in vogue: an education originally designed for gentlemen who did not have to work. The belief that such education has a cash value is clearly fallacious and doomed to disappointment. A college education in the liberal arts became associated with big money at a time when only people who already had money or uncommon talents could get it. As it becomes more and more accessible to the common man he will learn that the big money continues to go to those who already have money or uncommon talents, and that it was only an historical accident that these factors came to be associated with a college degree.

The whole chain of reasoning and statistical evidence might just as well be applied to raccoon coats. It might be proved just as easily by observation and statistics that those who own raccoon coats have more money than those who do not, yet we could be sure that the common man who purchased a raccoon coat in the expectation of making a fortune thereby would, barring miracles, be disappointed.

When this chain of reasoning is brought out into the open it seems incredibly tawdry and absurd, yet it is probable that a goodly share of popular support for education in the liberal arts is based upon it. To justify this type of education, therefore, solely on the ground that people want it and pay for it would be like justifying the sale of patent medicines on the same basis. It is the duty of every enlightened educator who has the welfare of his people at heart to resist this sort of demand for a liberal education. On the part of the privileged classes it is a method of conspicuous waste; on the part of the exploited it is a magic carpet to wealth and power with utterly fictitious value. We must find a better reason than this sort of popular support to justify a program of education for the establishment of independent interests. We do not want education to become the opiate of the people.

Means to Happiness. We find three important reasons for establishing interests at public expense in the major fields of human activity. There may be a great many other reasons, but these three seem sufficient to establish the legitimacy of this function of secondary education. The first is that interests are indispensable means to happiness. The nature of the organism is such that it functions harmoniously only in form-

ing purposes out of the multitude of stimuli presented by the environment, in pursuing them, achieving them in some measure, and re-formulating purposes on a somewhat higher level or in a different direction. The habitual pursuit of certain purposes may be thought of as interests. They seem to arise out of the basic needs of the organism and the satisfactions offered by the environment; it is hard to tell which is which. At any rate, it is common knowledge that no one is happy without interests. The person who does not know what he wants to do is restless, irritable, unhappy. If this condition continues for any length of time he becomes physically and mentally sick. He loses appetite, sleep, develops neuroses, and is unfit to live with. Interests and purposes, therefore, are a physical necessity of the organism. Since public education is concerned with enabling society to provide the conditions essential for happiness, it must develop in its pupils numerous, varied, and deep interests, along with a technique and habit of continuous pursuit, achievement, and re-formulation or re-direction of interests and purposes.

Means to Social Progress. The second reason is that the kind of interests people acquire determines the quality of a civilization. The racial heritage of experience and culture is conserved and extended only through the efforts of people who find a compelling interest in it. On the other hand, in the absence of fruitful, expanding interests people turn to morbid, vicious, enervating pleasures and civilization declines. The amount of time spent in gladiatorial shows, the infliction of pain, sexual perversions, gambling, drunkenness, and crime as substitutes for normal social intercourse, outdoor play, reading, the arts and crafts, science and scholarship is an index of decadence. The organism demands purposeful activity; in the absence of interests of high social value it will seize upon the low. It is to the interest of organized society to condition the young to like activities which are conducive to peace, order, altruism, intellectual quickening, and social progress, and to avoid activities which are conducive to crime, dissipation, cruelty, selfishness, irresponsibility, and morbid excitement. This argument is too well known to require further elaboration. Clubs, playgrounds and community centers are set up in every city to combat tendencies toward juvenile delinquency, and schools are expected to play the major role in this program.

Means to Continued Growth. The third reason for promoting the establishment of interests concerns the effectiveness of the educational process itself. Interests are not only worthy outcomes of education; they are indispensable means for learning everything else that children have to learn. By assisting in the pursuit and re-direction of interests we can teach children scientific method, useful generalizations or understandings, study skills, work habits, citizenship, social graces and accomplishments, vocational orientation and practical competence. Without strong interests they can learn nothing well. We have all seen the teacher who strives in vain over several class periods to teach some silly rule of grammar that could be mastered in a flash if pupils grasped its relationship to their own interests. Education of any sort is prohibitively wasteful of time and energy unless it is based upon interests, whether these are acquired in or out of school.

Interests, moreover, provide the strongest assurance that socially desirable learning will be continued in higher institutions and outside of school. If the money spent on education is to have the largest possible return, it is to the tax-payer's advantage to have the processes of learning continue indefinitely after being initiated in school. This can only be done if the pupil acquires interests which drive him on to continuous growth and development. It is a matter of common observation in any community that the adults who are conspicuously well educated are those who have never stopped learning. Schooling is not enough. One could fulfill to the letter all the requirements of all one's teachers and still remain a profoundly ignorant man. In order to tap the infinitely greater resources for learning outside the school, pupils must be well started on the road to developing numerous, varied, and deep interests. They are the mainspring of the educational process.

Hence, public education is justified in spending public funds for the establishment of interests for at least three reasons:

1. Interests are indispensable means to happiness.
2. Interests determine the quality of a civilization.
3. Interests are essential to all learning.

Kinds of Interests to Be Developed. What kinds of interests must be established in order to promote happiness, social progress, and continued growth? Is it sufficient to develop in-

terests in the English classics, foreign languages, history, science, and mathematics, or must the program of secondary education look toward a wider range and different kind of interests? Certainly not all interests are of equal value. We propose six directions in which we think interests should develop.

First, interests should be based on needs. This is somewhat at variance with present practice which tends to make interests and needs antithetical: interests representing what one enjoys, needs representing what one has to do willy-nilly. We are confident, however, that a more careful psychological analysis of interests and needs would show that the one grows out of the other and must contribute to its satisfaction or perish. We do not have available a scientific classification of adolescent needs, but an arm-chair analysis suggests the following, which may be accepted for the moment as typical: the need for food, sex, activity, excitement, laughter, rest, successful relations with others, security, intellectual orientation and aesthetic satisfactions. It is obvious at once that most adolescent interests are derived directly or indirectly from these needs and contribute in one way or another to their satisfaction. In many cases, of course, an interest is only associated with the satisfaction of some need by way of the conditioned response, but some such connection must be apparent to the learner, not necessarily on the level of consciousness. It will not do to build a program around interests which have no real connection with felt needs. Such interests will not take root and grow.

Second, interests should progressively become clearer. In place of the infantile drive to every sort of activity should come distinguishable interests, more and more clearly perceived by the learner. Without such clarity of direction we get the enthusiasts who try to ride their hobby-horses simultaneously in all directions.

Third, interests should become more consistent with one another. When there is a necessity for a choice among them, this should be possible without setting up a dangerous conflict. This criterion has little meaning in connection with the academic interests which the school usually endeavors to cultivate, but it has an obvious bearing upon those interests, purposes and values which really control human action. One motive conflicts with another, and the individual is torn between them.

Fourth, interests should be reasonably attainable. The goal may be ever receding, but progress toward it should be measurable in terms of definite accomplishments which the learner can chalk up to his credit. No interest can be stable in which the learner has not a chance to succeed.

Fifth, interests should be socially desirable, or at least not in open conflict with the welfare of others. This principle does not have to be carried to the point at which every interest is rigorously scrutinized for its possible contribution to social progress. It is a sufficient contribution to social progress if it makes the individual happy without subsequent remorse and without making other people unhappy. This principle rules out crime, dissipation, cruelty, and the like.

Sixth, interests should be inclusive or well-rounded. Some interests should be established in every individual in all the major fields of human activity. By the major fields of human activity we mean activities ordinarily associated with work, play, home, and politics, or any other broad classification of human endeavor. We have already argued that interests are indispensable means to happiness because it is observable that people without interests are invariably unhappy. This observation might be pursued further. Apparently the organism functions better, other things being equal, when its central purpose, or succession of purposes continuously re-formulated, coincides with its vocation. This is a matter of every-day observation. People who like what they are doing are happier than those who do not. No avocational interest can compensate for this fundamental maladjustment. From this we may conclude that the school should bend every effort toward the development of strong interests in a field of service to society and of competence to win a position in this field.

This central purpose, however, is not sufficient to satisfy the requirements for happiness. There must be subsidiary purposes, first in the range of duties which may be expected to devolve upon all of us, such as maintaining a family and attending to civic obligations, secondly in the vast possibilities of leisure time. Thus the school cannot choose interests at random and set about developing them. It must develop interests in each of the major fields of human activity; otherwise the conditions for happiness, for social progress and for continued growth in these areas are not satisfied. Only when pupils feel

secure with respect to their preparation for meeting more fundamental obligations and for satisfying more fundamental needs can they devote themselves whole-heartedly to intellectual play.

II. The Development of Interests

The School's Contribution. Fortunately many home and community influences predispose pupils to be interested in all of these fields, so the school's task lies in the development and re-direction of interests rather than in establishing them. Most adolescents are keenly interested in the prospect of a career. On this foundation the school can build interests and competence that will enable the pupil to choose and to enter some particular field of service to society. Most adolescents are already interested in love and marriage. On this basis the school can build interests in other important aspects of married life: having children and keeping a home. In the realm of civic obligations most adolescents are predisposed to an interest in current politics in spite of the dull round of history and the anatomy of government which they learn in school. On this basis a corps of really effective teachers could build an active and interested electorate, but unfortunately this business has fallen into the hands of historians who can make any political issue seem as one with Ninevah and Tyre. Finally in the vast possibilities of leisure children do not have to be taught to play; we have only to propose some new game.

Needs Served by Leisure-Time Interests. These leisure-time interests serve a variety of human needs. In the first place they provide an outlet for healthful activity: for that continuous pursuit, achievement, and re-formulation of purposes that the organism needs—over and above its duties. In the second place, they serve as a medium for securing successful relations with others. Most interests are social; even reading is a sharing of experience with the author, and interests like chamber music bring into play those relationships with others that seem like the loveliest flowers of human experience. In the third place, they serve as integrating centers for our experience, as avenues to understanding our world better. This function is more difficult to define, but it is no less real than the others. The man who is deeply interested in art invariably

insists that art is only a vehicle for understanding life; the man who is interested in building socialism finds in the doctrines of Marx and his successors an intellectual framework for orienting himself in the world; even the humble philatelist insists that he learns a great deal from his stamp collection. These men are all exemplifying the progressive pattern of education: that learning is possible only as one pursues an active interest and relates a variety of experiences to it. This need may be called the need for intellectual orientation: for useful knowledge integrated in a philosophy of life. In the fourth place, avocational interests may lead to unforeseen practical results. Scientific progress depends on just such interests, somewhat professionalized; and the continual learning they demand makes the individual more adaptable to the changing circumstances of his life.

Scope of Leisure-Time Interests. In the field of leisure-time interests the secondary school should be able to say of its graduates: They have learned to make, keep, and entertain friends and to enjoy both company and solitude. They have acquired habits of outdoor play and recreation which are likely to continue into adult life. They habitually practice at least one of the arts or crafts and enjoy several of them, both in and out of school. They read widely and enjoy various types of scholarly and scientific investigation and discussion. They look forward to continued education throughout life. They have learned to keep their life work in proper relationship to other values. They have learned to keep their interests fresh by continuous re-direction, expansion, and growth. They avoid pleasures which are demoralizing to individuals and to society. They support and participate in types of recreation which are conducive to personal and social integration: to peace, order, altruism, health, intellectual quickening, aesthetic sensitivity, and social progress.

This outline of standards for secondary schools in the establishment of leisure-time interests can be justified only as it appeals to the common sense of educators and their communities as a fair statement of what may be expected in this area of a high-school graduate. It seems to represent fairly well the range of leisure-time pursuits of young men and women who are having a good time in ways which do not seriously alarm the wisest of their elders. They are strongest at the present

time in sports and social intercourse and weakest in reading, the arts and crafts, science, and scholarship; but no one would deny that the latter would represent desirable additions to their leisure-time resources. All of these fields seem necessary to the well-balanced use of leisure. The person who has formed no habits of outdoor play and recreation is pitied, regardless of his other attainments, as is the unfortunate who has no friends, and none of the social graces or accomplishments. Those who are blind to the arts, who do not read, and who have no scientific or scholarly interests whatever, low as our standards are in these matters, are also felt to be handicapped. We have not mentioned hobbies, such as collecting, outside of the fields mentioned above, but where they do not interfere with the development of interests in these other fields they may well represent desirable additions to the program. Social dancing, bridge, and other indoor games are classified among the arts of social intercourse.

These five fields, then, may be tentatively adopted as the minimum essentials of a well-balanced leisure-time program: social intercourse, outdoor play, reading, the arts and crafts, science, and scholarship. In addition to these let us keep in mind the other fields of activity besides leisure in which interests need to be developed: work, home, and politics. In all these areas interests must be based upon needs and contribute to their satisfaction, and they must become ever clearer, more consistent, more attainable, more social and more inclusive. This, in general, represents the scope and character of the program for the establishment of interests which are advocated for secondary schools. Only such a program can establish and develop interests which are indispensable means to happiness, to social progress, and to continued growth. In the next section will be outlined more carefully the means by which this program may be developed.

One further word must be said, however, with regard to certain of the arts and sciences which are looking anxiously for some justification for their place in the program on grounds of their relationship to the worthy use of leisure. They continually deprecate the inclusion of "practical" courses in the curriculum on the ground that training for leisure is more important. If it could be proved that any considerable number of pupils practiced or enjoyed these arts and sciences over any

significant part of their leisure time, and that this interest is likely to continue in adult life, the argument might have weight. As matters stand at present, these arts and sciences are usually justified as training for leisure only because it is obvious that no considerable number of pupils could possibly use them in any other way; they must be practiced or enjoyed in leisure time if they are to be used at all. That is to say, they are defended on grounds of their logical relationship to leisure rather than their actual use by pupils as leisure-time pursuits. Unless foreign language teachers, mathematics teachers and historians can demonstrate that their pupils have actually formed habits of pursuing these arts and sciences on their own time without compulsion, and are likely to continue them into adult life, they had better abandon their argument about training for leisure and defend their subject on better grounds.

Evaluation of Interests. Once an objective is clearly defined, it is good educational practice to think next of some means of valuation by which progress toward the objective might be estimated. In the case of interests we have no accepted measuring-stick in common use, but a few devices which have been developed by the more progressive schools for this purpose may be suggested as possibilities.

The most promising of these is a small ten-cent note book, preferably loose-leaf, which may be labelled "Interests and Purposes", "Goal Book", "Progress Reports", or anything that suggests an account of developing interests. In their home-room or counseling periods at intervals of perhaps once a month pupils are asked to put down in this book, one to a page, the various things they would like to do, to be, or to have, under such headings as work, home, politics, and play, the last sub-divided into sections on friends, sports, reading, the arts and crafts, science, and scholarship. It takes about a year to get pupils to do this willingly, honestly, and accurately. It requires an elaborate and perfectly sincere build-up on the part of counselors and home-room teachers on somewhat the following lines: The school is dissatisfied with its present program. It wants to do more than it is now doing to help pupils in doing what they seriously want to do, in becoming what they want to be, and in getting what they want to have. It also wants to help them in re-directing and re-formulating their interests and purposes to make them ever more contributory to needs, ever

clearer, more consistent, more attainable, more social, and more inclusive. It has no business doing anything else. In order to do this, however, it is necessary to keep in constant touch with the developing interests of every pupil, and what he is doing about them. Interests reported will be held absolutely confidential, and none will be laughed at or scolded. The school pledges itself to do everything within its power to help each pupil in pursuing the interests and purposes he has set down, and to change its program whenever it can in ways which would be more helpful in following out these interests. From the beginning counselors will recommend reading, special assignments, projects, people to interview, sources of materials, groups to join, and the like which will be immediately helpful in pursuing at least a few of each pupil's interests. As common interests become apparent over sufficiently large groups, new activities will be sponsored if, in the judgment of the pupils, there is anything the school can do to make the pursuit of these interests more enjoyable, more effective, and continually expanding. In other words, pupils can write a large part of their curriculum by putting down seriously, honestly, and accurately what they want to do, to be, and to have.

The mere expression of an interest, however, is not enough. Following each interest recorded in the note-book the pupil should indicate briefly how this interest arose. This may give a clue as to the seriousness of this interest and as to the direction it might profitably take. The real test, however, is to have pupils leaf through their note-books at intervals of perhaps once a month during their home-room or counseling periods and put down anything they have done or experienced which represents progress toward any of the interests or purposes they have set down. These are their professed interests; what have they done about them? In this way one can discover which interests are really controlling behavior, which are merely paper goals, and which are frustrated by circumstances which the school might help to alter, or which need to be recognized and accepted. At this time the pupil may decide to drop certain of his professed interests. This may be done by entering the date and the word "Dropped" on the page devoted to this interest, but the page should be kept, either in the pupil's note-book or in the teacher's file, as a record of growth. It will be illuminating if the pupil is able and willing to add

some explanation of why this particular interest was dropped. This is also the time to add new interests of which the pupil has become conscious during the month, and to re-phrase or re-formulate old interests which have taken a new turn.

This procedure obviously cannot be adopted like a new textbook. It has to grow up in each school like a counseling system. One may confidently anticipate that it will take at least a year before pupils and teachers learn how to use it effectively. It is not known how far down in the grades it may be used profitably. It has been used successfully in grades 10 to 12, but teachers in these grades often express doubts as to whether it could be used in the junior high school. If this is so, then it is sheer nonsense to assign the function of "guidance" in part to the junior high school. If junior high school pupils are not yet sufficiently conscious of their evolving purposes and interests to be able to say what they are, even after conference with a counselor, it is silly to hope to "guide" the pursuit and re-direction of these purposes. Such guidance could have no real meaning. It is likely, however, that we have here only another instance of teachers' prevailing belief that pupils on the level immediately below their own bailiwick are not yet quite human. As the procedure outlined above is more widely adopted, no doubt junior high-school teachers will find that it works very well with their pupils, but they will have grave doubts as to whether elementary-school pupils could use it.

Time for Individual Conferences. Keeping the note-book is only a part of the program of evaluating and directing the development of interests. It obviously requires some provision for individual conferences with the home-room teacher or counselor to assist each pupil in exploring his own interests and purposes and to make suggestions toward their pursuit and re-direction. This, the reader will say immediately, obviously limits its usefulness to small, rich schools with a teacher to every eight pupils. Not at all. It has been done in schools with over three thousand pupils, over thirty for every teacher, without adding a single person to the staff. The procedure is somewhat as follows: Such schools ordinarily have a long lunch period to serve two or three different groups of pupils. It is a difficult administrative problem to schedule classes around this variable lunch period and to keep pupils who finish their lunch early

from getting into mischief and disturbing the classes which are in session. This problem has been met by scheduling no classes during the hour or more devoted to lunch, but to set up a number of leisure-type activities which require a minimum of adult supervision, to which pupils may go either by "signing out" each day from their home-room, indicating where they will spend their free time, or by "signing up" for certain activities a week or more in advance, or (as the system becomes established) at their own sweet will, without any red tape whatsoever. Pupils who are nervous, high-strung or convalescent may go to quiet, darkened rooms and relax. Others may go to the library to read, to the music rooms to cluster around a piano and sing or to listen to phonograph records, or to rooms where they can play games, like checkers, chess, and bridge, and chat with their friends. Some schools provide a room for dancing during the noon hour on certain days. Meetings and rehearsals which are not on regular schedule may be held at this time. Some work may be done in the studios, shops, and laboratories. There is usually some limitation on outdoor play, because it is considered unwise to indulge in strenuous exercise directly after lunch, but a few of the less strenuous outdoor games may be permitted. Most of these activities are supervised by responsible older students appointed by the School Council, with only a few teachers going from room to room to see that no serious damage is done. It is understood that the moment students get out of hand regimentation will be resumed, and since they value this opportunity for leisure exceedingly, they soon learn to behave reasonably well. It is necessary for the teachers and the administration, however, to get used to a reasonable amount of hubbub. Children at play do not behave as adults in church.

The main point of this leisure-time period is that it gives the whole student body something interesting and worth-while to do which requires the very minimum of adult supervision, and in consequence, it leaves every pupil and (except for perhaps one day a week patrol duty) every teacher free for individual conferences, which have the right of way over every other activity during this period. No pupil can say, "I can't come for a conference today; I have to attend a meeting of the Chowder and Marching Club." Meetings and rehearsals can be scheduled at this time only with the understanding that

counseling conferences come first, and that they must make provision for absences. Taking out half an hour for lunch, this leaves at least half an hour a day for counseling. For all routine purposes two conferences can be held in this time, or at least six every week. This means that even in a large high school with a heavy pupil-teacher ratio each pupil could have an individual conference with his counsel or home-room teacher at least once in every six weeks, or six times a year, which is much better than our present average, even in favored schools.

This procedure seems to work better than the older devices of the home-room period, taking pupils out of class, and staying after school. Satisfactory individual conferences are almost never held during a home-room period. There is no privacy; there is continual distraction; and the teacher has to devote most of his time to devising activities to give his flock something to do and keep them out of mischief. Taking pupils out of class for individual conferences creates a tense situation. The youngster usually feels that he must have done something wrong, and he hates to miss work that he will have to make up. It also annoys the teacher to have pupils taken away, and on the part of the counselor, it fills up his free periods. Staying after school for conferences puts them in the class of penalties. To say that school ends at four o'clock but one may go home at three unless one has a conference is the shallowest sort of subterfuge which does not fool pupils for a moment. They know in this case that to stay after three o'clock is to stay after school, and all their plans for the afternoon start from three o'clock. The long lunch period, however, which is so useful for a variety of purposes, seems also to solve the problem of time for individual conferences very well.

Purposes Not Consciously Formulated. With such conferences provided, the counselor may discuss with each pupil the interests and purposes he has set down, trying to clarify those that are vague or unintelligible and to bring others to the pupil's attention which may be implicit in his behavior but not consciously formulated. In this connection it is helpful to have available an outline of the major fields of human activity in which the school is trying to develop interests. Going over such a list with the pupil may reveal to him many interests which he is actually pursuing but which it did not occur to him to record.

One or two other devices may be suggested to bring to light interests and purposes which are below the level of conscious formulation. One is to ask the pupil two or three times a year to think over the events of the past week and to describe briefly those that seemed most interesting or most important: the high-lights of the week. A variant of this device is to ask him what he would do if he did not have to come to school for a week. He may discover in this way interests which he did not know he had.

A second device is a questionnaire covering all the fields in which the school would like to develop interests. It is important in constructing such a questionnaire to carry the analysis of the interest down into those concrete daily activities in which this interest manifests itself. For example, "Are you interested in music?" is a perfectly useless question. Every pupil knows that the correct answer is "Yes." Let us instead ask such questions as these: "Do you suggest singing at home, at parties and picnics? Do you join in such singing when it is suggested? Write the name of all the songs you know, words and music. Can you improvise harmonies to the songs you sing? Is your enjoyment of singing cut down by the feeling that you do it so poorly that you don't want anyone else to hear you? Do you sing when you are alone? Do you sing while you are working, provided it does not interfere with the work of others? Do you ever make up songs? Can you accompany singing on an instrument? Can you improvise accompaniments? Do you play any musical instruments? How often? Well enough so that you like to play for others, or with others? What radio programs do you listen to regularly? Occasionally? Which do you enjoy most? Do you listen to phonograph records? If so, what kinds of records do you like best? What is your favorite dance orchestra? What other orchestras do you like? Which do you dislike? Which of the popular melodies that have come out within the past year do you like best? Which do you actively dislike? Which concert artists do you like best? Which compositions that they play or sing to do you enjoy most? What symphonies do you like? What operas? Do you listen to the Saturday afternoon broadcasts of the Metropolitan Opera? To the Sunday afternoon broadcasts of the New York Philharmonic?"

This sort of analysis would bring out pretty clearly whether the pupil was interested in any phase of music, and where this interest might profitably be extended. The same might be done for the other fields of leisure time activity. Such a questionnaire could be constructed by the faculty of any school, and would serve to clarify their objectives in the field of establishing and developing leisure-time interests.

A third device for bringing interests to light is the reading record which is kept in most schools. An analysis of the kinds of books read over a considerable period of time is a helpful clue to interests. A fourth device is a record of creative products which is beginning to be kept in many schools. It includes, the name, title, or subject of the product submitted, the medium of materials, the approximate number of hours of work represented, the purpose or central idea as stated by the pupil, and his own evaluation of how successful it was in achieving this purpose or expressing this idea. The accumulation of a large number of products around some common central idea or purpose is an indication of lively interests in this area. Creative writing is especially fruitful in revealing interests. Finally, the record of the student's participation in free-choice activities in school, whether these are in the extra-curriculum program or in the long lunch period suggested above, is an important indication of interests. The long lunch period is especially valuable for this purpose. If a reasonably broad range of activities is provided, one has direct evidence of what the pupil does with leisure time.

Criteria for Progress. All these evidences of developing interests, like evidence of progress toward any other school objective, should obviously be referred to the counselor or home-room teacher of the pupil concerned, who will see to it that any genuine interest they reveal gets down in the pupil's note-book of interests and purposes. This note-book is the best ultimate source for the collection of evidence on the evolution of interests. It should be evaluated by the pupil with the help of his counselor at least once a year according to the criteria set up in the first section of this chapter, or any other criteria that they can agree upon. Are these interests related to the pupil's needs? (Here we do not have to go on any abstract statement of adolescent needs.) Are they related to the obvious needs of this particular pupil? Are they becoming clearer,

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more consistent, more attainable, more social and more inclusive? Under the last heading, do they cover the major fields of human activity? Is the pupil developing interests in a vocation, in family life, in politics (in a good sense) and in the five fields of a well-balanced leisure-time program: social intercourse, sports and games, reading, the arts and crafts, science and scholarship? Do his interests change and grow, or have they remained static? In the interests which have persisted over long periods of time is there evidence of increasing depth of understanding or skill?

The answers to such questions as these will indicate the effectiveness of the school's program for the development of interests and whether the pupil is doing his part. The notebook also provides the basis for another sort of evaluation that should gradually replace much of our present academic book-keeping. The pupil has declared certain purposes; his success in life depends in part on the attainment of these purposes, in part on their change and growth in socially desirable directions. At certain points in his development it would be helpful for him to consider, with the assistance of a sympathetic older person, how he stands with reference to his declared objectives. If he wants to become a writer, what progress has he made? What are his present prospects of success? If he is interested in painting, what progress has he made in this area? If he wants to become a trustworthy, responsible person, what evidence is there that he is becoming such a person? As these purposes become more and more specific the pupil may even request his counselor to buy or to make up tests and examinations to enable him to find out whether his progress in certain areas of growth measure up to reasonable expectations. This sort of evaluation in terms of his own interests and purposes, rather than in terms of the interests and purposes of the teacher, should make learning a more reasonable and plausible undertaking than it is at present. It should also furnish the basis for an intelligent recommendation to college. From the standpoint of the secondary school the question to be answered is: "Which college within the range of this pupil's financial and intellectual resources, can help him most toward the goals which he has set for himself?" From the standpoint of the college the question is: "Which of the candidates for admission can we help most toward the goals which they have set for

themselves?" Both of these questions can only begin to be answered when we have such data on the developing interests of each pupil as are recommended in this chapter. For a long while after we get such data the answer to both questions will probably be that no liberal arts college can help any pupil very much toward any of the goals which he has set for himself. But this condition must, and will, change. We can imagine no better device for this purpose than a clear formulation on the part of each pupil of a personal pattern of goals.

III. Interests and the Curriculum

Desirable Curriculum Practices. With the objectives thus clearly defined, and with means at hand for keeping in touch with pupils' progress toward it, we are in a position to consider what sort of program of secondary education makes adequate provision for the pursuit and re-direction of interests.

The elective system is being modified by a trend toward "integration." A rather large block of time each day is set aside for an integrated series of activities, usually cutting across subject-matter lines, in which all pupils participate. Several types of integrated programs may be distinguished. The Cultural Epoch type studies all aspects of the life of a people within a given epoch, such as the Middle Ages. The Broad Fields type usually assumes that all pupils should know something about the natural sciences, the social sciences, and the humanities, so it organizes the materials which it considers to be of greatest social value for all pupils within each of these fields into a continuous, inter-related sequence, usually of two or three years' duration, to which all pupils are exposed. It has much in common with the survey courses commonly offered in these three fields in the first two years of college. One variant of the Broad Fields type is to devote the integrated program of the tenth grade to the humanities, of the eleventh to science and mathematics, and of the twelfth to social problems. A third type might be called the Life Activities or Cardinal Principles type. It may have separate courses devoted to Vocations, Leisure, Health, and Community Living, or it may have a single "Practical Problems" course with units of work, play, and study directed toward all of these fields of activity in one sequence. A fourth type has as its central feature the co-

operative planning of each unit of work by pupils and teachers. No curriculum is laid down in advance, but as each unit of work is finished, pupils and teachers meet to decide what is the most logical, appropriate and interesting thing to do next. They usually have certain criteria in mind for the selection of units, but these criteria have nothing to do with any predetermined subject matter to be covered. This type of integration is usually called "the activity program." A variant of this type might be called the "expanding horizon" type because it holds pupil-teacher planning units within a loose framework, proceeding from immediate problems to those more remote in time and space. A fifth type of integration is the Major Interest type in which one-fourth or more of the pupil's time is reserved for the pursuit of his major academic or vocational interest, while the rest of his work bears some relation to this interest. Pupils are known as "art majors" or "business majors" and the special projects which are assigned to them in other courses try to take these interests into account. A sixth type integrates the program around school-wide objectives. The faculty usually agrees upon four or five major objectives which are of common, active concern to all teachers, such as Clear Thinking (including information and study skills), Social Adjustment (citizenship, character traits, and social acceptability), Health, Interests, and Practical Competence. Thereafter all work in whatever subjects are offered is supposed to be directed toward these objectives.

How will interests fare in this new line-up of the curriculum? Experimentation in all these types of integration is going forward in the more progressive schools all over the country, and a disinterested observer can only report that all types seem to promote interests better than the old laissez-faire elective system. If, however, a school is contemplating going over to an integrated program, and wishes to know what type of integration will best conserve interests among other educational values, that is a harder question to answer. Objective evidence is almost wholly lacking. Some answer, however, must be attempted by those who have had an opportunity to observe all these types of integrated programs in operation without having a vested interest in any of them. Such observation usually leads to the conclusion that two types of integration have been most successful up to the present in estab-

lishing and directing the range of interests discussed in this chapter. One seems to work better in the junior high school, yielding gradually in effectiveness to the other in the senior high school. The first is a "practical problems" course, meeting usually for a double period daily in the junior high school, and from one to three double periods weekly in the senior high school. It consists of a series of units of work, study, and recreation, planned by pupils and teachers coöperatively, but consciously directly toward some classification of the major fields of human activity, such as work, home, health, play, and politics. It is usually formed by putting together the social studies and English course, purely because these are usually the only courses which all pupils have in common and which have a relatively fluid content, but they are not necessarily taught by social studies and English teachers, and they have no obligation to teach social studies and English at all if they can avoid it—which is impossible. This course bears the major responsibility in making pupils interested, competent, and intellectually oriented in each important phase of their present and probable future activities. It may be taught by any of the present corps of teachers who have a vision of its educative possibilities, and it generally enlists the services of practically every specialist in school to assist at various times in aspects of the work which are related to his field of special competence. In this way children come to realize what special kinds of services the scientist, the social scientist, the mathematician, the linguist, artists and artisans, health specialists, and the like can render in the solution of their problems in the areas of work, home living, health, play, and politics. From this they are led to an investigation of these fields of knowledge to discover what values they hold for their own development, and from this possibly to elective courses or units in these fields which are related to their special needs.

The other type of integrated program which seems to be especially effective in establishing and developing interests is the "Major Interest" type. It gradually replaces the "Practical Problems" course, meeting for perhaps two double periods per week in grade 10, three in grade 11, and four in grade 12, while the "Practical Problems" course continues to meet in the same block of time in diminished ratio: three double periods a week in grade 10, two in grade 11, and one in grade 12. As children become acquainted with the possibilities of various

fields of specialization through the "Practical Problems" course, through subsidiary courses and electives, and through out-of-school experiences, they come to the point at which they can profitably enter upon some field of specialization and make that field the integrating center of their educational experience. In setting up this kind of program it is important not to take the existing subjects in the curriculum and have pupils choose their major interest among them, but to follow the development of their interests through the junior high school and then organize courses dedicated to the pursuit and redirection of the more important interests and purposes which sufficiently large groups of pupils have in common. It is also important not to develop a narrow, logically-organized course in each field of specialization, but to regard it as the integrating center of the pupil's experience, and to continue the development of interests and competence in the major fields of human activity through this medium. The fields of specialization ordinarily set up under this program are Arts, Business, Engineering-Industry, and Home-Making. Other fields are varying: sometimes Agriculture is added, sometimes the Professions are treated as a group. In some schools broad subject fields are set up as fields for specialization: science, social studies, humanities, or languages. The saving feature of most Major Interest programs is that pupils are apprenticed, as it were, to a master who has an inspired vision of the educative possibilities of his field of special competence. No matter how poorly the field of specialization is selected, this sort of education seldom fails to grip the interest of pupils and to develop many sides of their personalities.

These two types of integration were singled out for special mention because they have been particularly successful up to the present in arousing and directing interests in the major fields of human activity. Other types, however, might suit better the resources and personnel of particular schools. The main point of this section is that we have nothing to fear from the newer types of curriculum organization so far as interests are concerned.

The Elective Program. While experimentation with these newer types of courses has been going forward, the rest of the program has continued in operation on an elective basis. This has had one serious bad effect upon the development of inter-

ests. In the effort to get in all the traditional elements of secondary education in addition to a sound integrated program the curriculum has become so crowded that pupils and teachers are driven to distraction. Interests cannot develop naturally when pupils have seven or eight classes or activities to meet daily, each with strenuous demands upon their attention and energy. Sheer fatigue and over-stimulation militate against the development of interests in such programs. Pupils develop the attitude characteristic of many progressive schools: "Motivate us if you can, and we'll work for you!"

Something drastic must be done to cut down the number of competing demands upon pupils in schools which are experimenting with integrated programs. Since the integrating program ordinarily occupies two periods a day, the pupils' choice of electives might well be restricted to two more periods a day. This does not mean that the pupil can pursue only two electives, for the tendency is to break away from the standardized five-period-a-week electives and to substitute activities which meet one, two, three or four single or double periods a week. This enables him to pursue three or four electives in addition to the integrating program, but it confines these electives within a block of two periods daily. This, in addition to the long lunch period for leisure type activities and counseling, a period of outdoor play, and at least one free period makes a school day in which interests have a chance to take root and grow.

These elements of the daily program are arranged below in a sample schedule only to make them graphic. In an actual school the schedule would be more complicated.

Group A

Group B

9:00-10:30 INTEGRATING COURSES

10:30-12:30 Electives—free time Outdoor play—free time

12:30- 2:00 LUNCH AND COUNSELING

2:00- 4:00 Outdoor play—free time Electives—free time

No matter what sort of schedule is adopted, it is clear that some restriction must be placed upon the choice of electives. When left to their own devices pupils regularly bite off more than they can chew—to say nothing of the further processes of digestion and growth.

Several devices which have proved helpful in the more progressive schools may be suggested to reduce the burden of

elective courses. In the first place, a courageous and concerted stand must be taken against those parents who insist that their children shall take the traditional course in mathematics entire and more than one foreign language, regardless of their capacities and interests and of other educational possibilities. Two devices to this end have proved helpful. The first is an analysis of the requirement of the colleges to which the school sends the majority of its students, showing how few of them require anything like the amount of study of foreign languages and mathematics that parents (and some teachers) seem to think they do. Two years of mathematics (which may be of the most practical sort if only it goes by the acceptable names) and three years of one foreign language—two years in some institutions—should be enough to see any pupil, who is well qualified in other respects, into the college of his choice. The second device is a well-considered guidance program which can say to parents: "We have considered the application of your son (or daughter) for admission to the study of foreign languages (or algebra or geometry). We have the following evidence that he is not yet ready to profit by this study. (Prognostic tests, reading records, interest note-book, case references, etc.) We recommend instead the following program which will in time qualify him for the studies he has proposed. We shall watch his development carefully, and as soon as he is ready to pursue these studies profitably, without detriment to other pupils, we shall be delighted to accept him."

Most parents are willing to accept this sort of professional judgment if it is supported by convincing evidence. In a few cases the school will have a fight on its hands. If the principal does not behave like a scared rabbit at the first hint of combat, he can usually carry his point. If not, the pupil may be admitted to the study for one month on probation, with an agreement on both sides to abide by the outcome. In some cases the school is wrong, and should be glad to admit it. In other cases the parent is clearly wrong, and one month should be enough time to amass the evidence to prove it.

More than this can be done, however, to prevent mathematics and foreign languages from monopolizing the elective program, even when it is cut down to two periods a day. Most of the mathematics which is of practical value to pupils can be incorporated in the integrating program, especially if it is

of the "Practical Problems" type. Specialized courses in mathematics can then be offered only to prospective engineers and scientists. A first class job of foreign language teaching can be done in two class meetings per week if pupils are expected to spend a reasonable amount of their free time in the school library reading easy and interesting materials in the foreign language, with a teacher who knows several languages, an assistant or apprentice teacher, or responsible older students available during certain periods to assist in getting the meaning of the passages which baffle the student. At least four times as much, on the average, can be read in the same length of time under library conditions as under classroom conditions, and foreign language texts with a carefully controlled vocabulary are now available in which free reading can be done from the first day of the course. Class meetings can then be devoted to planning and reporting work, to discussing social and literary issues raised by the reading, and to instruction in the linguistic difficulties which pupils have encountered.

The same tactics can be applied to the English program which has grown so large in our schools with so little result. A very creditable English program can be made of the following elements:

1. Book Clubs, meeting once a week to read and discuss books.
2. Writers' Clubs, meeting once a week to read and discuss creative writing by members of the club.
3. Little Theatre Groups, meeting three double periods a week until a play is produced; then an opportunity for elections of other groups.
4. Reading Clinic, for a very few pupils with serious reading deficiencies, hours to be arranged according to need.
5. Speech Clinic, ditto. Possibly also a Writing Clinic. All clinics should involve less than ten per cent of the pupils.
6. Free Reading in the school library. The program should never become so crowded that pupils cannot spend at least one period a day in the library.
7. Individual Conferences on reading at least once in six weeks. These may be combined with the counseling conference discussed earlier in the chapter.
8. Major Interest Courses in literature, journalism or dramatics for pupils who wish to specialize in these fields.

9. Assistance in Other Courses, especially in the integrating program, as linguistic or literary problems arise.

It is at once obvious that if all these obligations are attended to, English teachers will have no time left for their formal, required courses. Good riddance to them! The average courses in English, plodding at a snail's pace through the respectable English classics, is nothing but a waste of time and a barrier to the development of interests.

For the other fields represented in the elective program one general suggestion may be made. As they become more and more intimately dependent upon the development of pupils' interests, and more and more responsive to them, it is likely that the year-long courses, meeting five days a week, in these fields will be broken up into shorter units, meeting two or three single or double periods a week. This is particularly necessary in view of the fact that work in the laboratory sciences, in the arts, in dramatics, in the shop, and in home economics requires a longer block of time than the textbook subjects. Work on a painting, a play, a scientific experiment, or a pan of cookies is usually one well started by the time the bell rings; hence teachers in these fields usually demand a double period two or three days a week. This plays havoc with enrollments since the double period stands squarely across the path of all the other electives which regularly meet five days a week. If the double-period course is selected in spite of this conflict, it usually leaves two or three days a week in which the pupil has two free periods in succession. All of this confusion could be avoided by having a large number of electives which meet one, two, three or four single or double periods a week, many of them for a term of six or twelve weeks, after which new elections are possible. Electives of this sort have been worked out in many of the more progressive schools, and after a period of adjustment to the new regime, teachers usually find to their surprise that learning is possible without class meetings every day.

It is assumed, of course, that "extra curriculum activities" will be scheduled within the block of time reserved for electives on equal terms with any other educative activity. If a student forum or an orchestra rehearsal or a kite-flying club conflicts with mathematics, let the pupil and his counselor argue it out with the parents as to which is more important for this

pupil at this particular time and decide accordingly. Only in this way can extra-curricular activities really be put into the curriculum. Merely to schedule them within the school day at a time which does not conflict with academic courses does not change their status. It is like the philosopher's riddle: "If you call a tail a leg, how many legs has a dog?" The answer is four, because a tail is not a leg.

Work in the natural sciences, especially in biology, and in all the arts, including the graphic and plastic arts, industrial arts, home arts, music, dancing, and dramatics, seems to be due for enormous expansion when the secondary-school curriculum really begins to be built around pupils' developing interests. These fields have enormous educative possibilities which have only begun to be utilized. Three methods of attack upon a problem need to be mastered and made habitual: the historical approach, the scientific approach, and the creative approach. Only the first of these is characteristic of school work at present. In almost every subject problems are attacked from the standpoint of their historical development. We already have a solid theoretical foundation for the scientific approach, but we are only beginning to put it into practice. Even in the sciences we are prone to develop understandings through illustrations, demonstrations, and textbook reading rather than through genuine experimentation. We have not even a sound theoretical foundation for the creative approach; it still awaits definition and clarification. Nevertheless it represents something real in pupils' experiences with the arts: the solution of problems which are not in the realm of objective truth but in the realm of values through some kind of imaginative synthesis of the factors relating to the problem. It is not for us to explain the mystery of creation, but to point out that there is a real difference between a scientific experiment and an artistic creation, and that the elective program needs more freedom for both of these experiences.

IV. Summary

The establishment and development of interests in the major fields of human activity is a legitimate function of secondary education because interests are indispensable means to happiness, to social progress, and to continued growth. Interests should always be based upon needs and should contribute

to their satisfaction, and they should become ever clearer, more consistent, more attainable, more social, and more inclusive. They should embrace all the major fields of human activity: work, home life, play, and politics, or any other broad classification of human endeavor. In the fields of leisure they should include at least social intercourse, sports and games, reading, the arts and crafts, science, and scholarship. Pupils should acquire the habit and technique of continuous pursuit, attainment, and re-direction of interests. Interests may be recorded in a note-book, one to a page, under such headings as are listed, giving an account of their origin and what the pupil does about them from month to month. This note-book may be supplemented by questionnaires, records of significant experiences, reading records, records of creative products, records of free-choice activities and other means to bring to light interests implicit in behaviors but not consciously formulated. Recommendations for clarification, pursuit, and re-direction of interests should be made in part through individual conferences with a counselor or home-room teacher who is in constant touch with the pupil's development in every area of school life. Time for these conferences may be found in a long lunch period during which a variety of leisure-type activities are open to pupils under supervision of responsible older pupils appointed by the School Council. The changes in curriculum organization now in progress do not threaten the establishment of interests but rather forward it. The type of integrated program which seems to have been most successful up to the present in establishing interests, at the same time conserving other educational values, is the "Practical Problems" type merging into the "Major Interest" type in the senior high school. To keep the rest of the program intact while developing an integrated program crowds the schedule to a degree which seriously interferes with the development of interests. It is suggested that electives be restricted to two periods daily. Several devices are recommended in the various subject fields to make this possible. Extra-curriculum activities should be scheduled within the block of time reserved for electives on equal terms with any other educative activity. As the curriculum becomes more responsive to pupils' developing interests, a great expansion of the present program in all the arts and in the natural sciences is expected, while the time devoted to mathematics, foreign languages, and English as such will probably decline. The ele-

ments of all these fields which are essential to the establishment and direction of the major common interests of all pupils will probably be incorporated in the integrating program.

FRANCIS T. SPAULDING.

PAUL B. DIEDERICH.

FUNCTION VII

To guide pupils, on the basis of exploratory and revealing courses and of other information gathered from personnel studies, as wisely as possible into wholesome and worthwhile social relationships, maximum personality adjustment, and advanced study or vocations in which they are most likely to be successful and happy.

INTRODUCTORY SUMMARY

The shift in emphasis in American education from caring for the needs of the few to caring for the needs of the many, from identity of educational opportunity for a limited number to diversity of educational opportunity for all, is eminently desirable. Nevertheless, it has produced in numerous instances a serious maladjustment between a pupil and his educational program. Unintelligent choices of studies, misfitting of pupils, misapplication or lack of effort, inarticulation of subjects, academic and personality failures, retardation, truancy, and even delinquency are evils which follow in the train of education when many pupils and many subjects are promiscuously thrown together.

Maladjustments within school may be further supplemented by other maladjustments outside of school. Here the individual faces an ever more complex series of relationships, social, cultural, vocational, civic, and the like, which require immediate adjustment on his part or an adequate preparation for making adjustments to them in the future.

It is to help the individual respond happily and well to his total environment that the secondary school has the function of guidance. Guidance aims to serve the educative process by individualizing it so effectively that it works for each pupil. To this end, the school must have a sympathetic understanding of the pupil's interests, aptitudes, and abilities and must make a conscious effort to help him to develop them for the satisfaction of his needs, the discharge of his duties and obligations, and the enjoyment of his opportunities. It follows that there should be no attempt in guidance to establish

a rigid control over the pupil. On the contrary, the right kind of guidance strives to help pupils help themselves, to make them ultimately as completely independent of formal procedures as they can be—even independent of guidance itself.

If the secondary school is to realize its function of guidance it must see to it that it guides pupils not only in name but in fact. It is an elementary principle that the effectiveness of guidance is limited by the amount of information available concerning the pupils to be helped. No less important is the converse—the value of the information gathered is limited by the use made of it. In the light of these principles, the school should compile from both objective and subjective sources cumulative records of all the factors which have influenced and are modifying the growth of each pupil. Then it must use the records intelligently—not only to assist the pupil to turn the resources of the school to his educational advantages, but quite as important, to modify the organization and program of the school itself whenever it is desirable and feasible to do so. Sufficient emphasis may have been put upon the value of guidance procedures in directing the development of the pupil, but certainly too little has been put upon their value in directing the development of the school.

When guidance procedures are more widely used to determine needed modifications in the schools themselves, many of the common evils attached to attempts to educate large numbers of individuals can be removed. They will tend to disappear as educational opportunities are made to fit the individual. But it is not enough to diversify the program of studies. Testing, grading, discipline, organization, and administration must all submit alike to the process of individualizing education. Otherwise we will not be allowing each pupil to make the greatest growth of which he is capable nor will we be able to educate both the leaders and followers, both the academically superior and the academically inferior, at one and the same time.

The most immediate task of guidance is, of course, to aid the pupil to make wise choices and decisions. The school does not monopolize this function to the exclusion of the pupil's parents or friends nor does it exercise it irrespective of his need for help. But of all sources of guidance the school is best equipped to provide the pupil with the experience, the informa-

tion, and the advice which he needs before he can make a decision wisely, or even know that some sort of decision should be made. The error of the school is never in offering guidance, if it be timely, but rather in using a false approach. It must not think of guidance in any corrective or remedial sense, nor yet as a means of making a pupil's program conform to any preconceived notion of his destiny, whether the notion originate with pupil or counsellor. The correct approach is for the school to study the pupil and assist him step by step in enlarging and enriching his life inside the school and out. Then when the time comes, and it will, for the pupil to select a college or vocation, the school should aid him to make a wise choice in the light of the interests, abilities, and prospects which his previous school and extra-school experience has revealed.

To discharge its function of guidance with full success, the school must organize itself for that purpose. The exact form which its organization should take will vary according to its resources and needs, but the purposes of its organization are in each case the same. Competent members of the school staff must stand ready to make the resources of the school available to each pupil in ways which will promote his full growth. The objective of the counsellor is always to help the pupil to establish for himself worthy objectives and to achieve them. This should be the attitude of the whole school as well. It must not leave the counsellor to play a lone hand, but must support his position with the services of a guidance department or office where counsellors may be trained and where they may secure the information and techniques which they need. Any school can organize itself for the purpose of guidance, even though at first it be in a small way. Costs may be always a consideration; if they are reasonable they ought never to be a barrier. The best way to prevent the waste of money in education is to use the services of guidance to make education function for each pupil.

I. Need for Guidance

Guidance is a function of all types of schools. Secondary schools can lay claim to it as a *special* function only because of its exceedingly great importance at this level of pupil experience. Guidance is an especially important function of the sec-

ondary school because of the peculiar nature of the secondary-school population, because of the complexity of life which the adolescent boy or girl must face, and because of the immediacy of need of these pupils.

Our public secondary schools are now committed to the principle of "education for all normal adolescents."¹ The ideal of selection of secondary-school pupils with the purpose of training for leadership is no longer tenable or entirely operative. Instead, the more truly democratic ideal of educating every member of society so that he may approach the ultimate in individual development and, at the same time, make the greatest possible contribution to society is being increasingly favored. The large gains in enrollment in the secondary schools as a result of this attitude and other conditions have been accompanied, as may be easily demonstrated, by increased variations in kind and degree in purposes, interests, and capacities of pupils.² These conditions and resulting changes in practice and closely allied modifications in the theory of education have immeasurably increased the need for guidance of various kinds at the secondary-school level.

To meet the problem of variation in individual differences in pupils there has been a great increase in the number and kind of offerings in the curricula of secondary schools.³ This increase in differentiated opportunities is testimony supporting the *distributive* function of secondary education.⁴ Instead of selecting only those individuals interested in and capable of success in the traditional type of college preparatory secondary school and rejecting all others as unfit for secondary education, it is now practically accepted as the responsibility of society to educate all types of normal individuals and to make this maximally possible by providing differentiated opportunities. It then becomes the school's responsibility to *distribute* pupils to these varied opportunities within the school, and without, and

¹Committee on Orientation of Secondary Education: *Issues of Secondary Education*, Issue I. Chicago: Department of Secondary-School Principals of the National Education Association, Bulletin 59, (January, 1936).

²G. N. Kefauver, V. H. Noll, and C. E. Drake: *The Secondary-School Population*. National Survey of Secondary Education, Monograph No. 4, U. S. Office of Education, Bulletin, 1932, No. 17.

³A. K. Loomis, E. S. Lide, B. L. Johnson: *The Program of Studies*. National Survey of Secondary Education, Monograph No. 19. U. S. Office of Education, Bulletin, 1932, No. 17.

⁴L. V. Koos and G. N. Kefauver: *Guidance in Secondary Schools*. New York: The Macmillan Co., 1932.

to do this as efficiently as possible. This change from selection to distribution places a more challenging problem before the school and emphasizes the need for guidance.

Coördinated with this distributive function of the school, largely accomplished through guidance, is the problem of the adjustment of the individual. As described by Koos and Kefauver in the discussion referred to above, one phase of guidance has to do with "helping" the individual to make the optimal adjustment to educational, vocational, and social situations. Whether it be changing a pupil's program, arousing or stimulating a pupil's interests, or adjusting personality conflicts, the whole problem of eliminating maladjustment and of harmonizing the individual and his environment is a major responsibility which the secondary school must accept.

The complexity of living and of life both within and without the school challenges increased attention to the mental and emotional health of individuals. Statistics from adult life give startling and increasing evidence of personality failures. From 1880 to 1923 the proportion of the United States population occupying beds in hospitals for nervous diseases trebled. Between 1904 and 1930 the percentage of new admissions to prisons almost doubled.⁵ We have evidence that nearly 60% of those who lost their jobs during normal times lost them because they couldn't get along with other people. Failures in family and adult life are reflected in great numbers in the statistics concerning divorce, desertion, dependency, suicides and the numbers who appear daily in the Domestic Relations Courts of our large cities. Added to these cases of individual failure in adjustment are the innumerable cases of people, not shown by statistics, who are under a severe nervous strain as a result of their own or someone else's maladjustment.

In the school, likewise, statistics of truancy, delinquency, discipline, academic failure, and retardation have been more often than not reflections of personality failures. School authorities have long been concerned with the failure of pupils to "pass" who seemed capable of satisfactory achievement. Educators have frequently been embarrassed by the knowledge that individuals who were failures in school have succeeded in adult life. Conversely, "good scholars", as the school terms

⁵*Statistical Abstract of the U. S.* Washington, D. C.: Bureau of Foreign and Domestic Commerce.

them, have been known to make miserable failures in life outside the school.

This cost of human failure in school and out, being paid in both money and in personal unhappiness, is causing much concern. Therefore, society and its agencies are being forced to investigate the reasons for such failures and to develop means of prevention. It is believed that much of this personality failure in school and elsewhere can be avoided. Such failure demonstrates rather dramatically, if sadly, the importance of the adjustive phase of guidance.

Changes in the social and economic order are attributed as the primary cause of a large number of cases of individual maladjustment. Whether they are or not, it is evident that the increasing complexity of the world, disturbing as it is to the mature individual, is especially baffling to the adolescent. Changes in the home, in labor and industry, in the character of society as it has altered its forms from rural to urban, in standards of living, in political organization, and in practically any phase of life which may be mentioned have occurred in such rapidity and to such degree that the individual is easily bewildered. He needs help in adjusting to the outside world and he needs help in adjusting to his school world. He must, at some time in school, choose, in a complex situation, curricula, subjects of study, opportunities for specialization in higher institutions, vocation, friends, associates, et cetera. His success and happiness depend largely on the wisdom of his choices and his adjustment to them. Individuals, especially adolescents, need help in making these choices and adjustments. Guidance is based on this need.

There is another important kind of evidence of the need of guidance. It has to do with the failure of individuals to profit to the fullest extent from the educational opportunities offered to them. This failure may be partial in that the individual does not accomplish the most of which he is capable and these partial failures are not reflected by statistics. On the other hand, this failure may be more complete in its nature and is reflected in the number of pupils who have dropped out of our secondary schools. While not as serious now as it has been, yet the fact remains that even now at the highest estimate only slightly more than seventy per cent of our youth of secondary-school age are in secondary schools. Whatever this

degree and amount of failure represented in both types of cases may be, it represents waste which can and should be reduced by proper and scientific guidance of pupils in our secondary schools.

To summarize briefly the evidence of the need for guidance in secondary schools:

(1) The ideal now is to provide secondary education opportunities for all normal individuals. These individuals vary greatly in mental ability, emotional attitudes, physical health, purposes, and needs. They are all different and must be dealt with differently and scientifically.

(2) The complexities of life within and without the school necessitate peculiar adjustment and appropriate preparation on the part of the individual.

(3) Failure on part of the pupil usually has deeper significance than is often seen at first glance. Generally, it is measured in terms of academic failure although it unquestionably involves the pupil's social, physical, mental, and emotional self. It modifies his ideals, his habits, his attitudes, and his appreciations. In the last analysis, it is often personality failure or character failure.

(4) The making of choices in school and out of it is a persistent factor in the individual's life and he needs help.

(5) The failure of many individuals to work up to the maximum of their powers and the elimination of many capable pupils from our schools represents a waste which can and should be reduced.

II. The Nature of Guidance

Guidance involves the sympathetic understanding of the pupil's interests, aptitudes, needs, abilities, and opportunities together with a conscious effort to help each pupil make the most of these and direct them toward worthy objectives. Guidance is not something that is done *to* an individual. It is a process by which there is built up in him the will and ability to do something *for* himself.⁶ This process is gradual in its operation and involves placing upon the individual only as much

⁶*Educational Guidance*, p. 4. Bulletin of the Public Schools of South Orange and Maplewood, N. J., December-January, 1928-29.

responsibility as he can assume with promise of success. The ultimate end in view, however, is complete independence of the individual in-so-far as any individual can be completely independent.

Guidance presupposes that the one doing the guiding is wiser and more experienced than the one being guided. The guide will not make the choices for the pupil, but will help him secure and evaluate his experiences and information so that he will make wise choices.

The aim of guidance is to achieve the aim of the educative process: (1) Training for individual efficiency and happiness; (2) Training for the common good.⁷ These two phases of an individual's development are complementary to each other and represent the complete aim of education irrespective of how they may be broken up into parts or into special objectives. The process by which changes are made in an individual's knowledges, skills, habits, attitudes, and ideals is education. Assistance given the individual in gaining the most from this process of education is guidance.⁸

Guidance has to do with every phase of an individual's growth and, since such growth is a unitary process, it is somewhat illogical to try to break it up into the various phases of educational, vocational, moral and social guidance and the like as is frequently done.⁹ In reality, one phase of guidance cannot be entirely separated from another in the actual guidance process and attempts to do so have frequently resulted in a distorted point of view and in inefficient guidance. Education has to do with the all-round development of the individual and guidance must, therefore, be concerned with the *whole* individual in his complete experience. It may be convenient at times to think in terms of these various phases of guidance, but it should be kept constantly in mind that these are just phases and are inseparable parts of the whole process. The errors involved in practices to the contrary might be avoided by realizing that what is really meant by them is guidance in terms of the various fields of choice such as vocations, schools and curriculum, morals, social relationships, etc. It is very im-

⁷Ibid., p. 4.

⁸A. J. Jones: *Principles of Guidance*, Chap. II. New York: McGraw-Hill Book Company, 1930.

⁹Ibid., pp. 29-32.

portant that guidance be thought of as a unitary process involving the individual in his whole life.

III. Elements in a School Program Contributory to Worth-while Guidance Outcomes

(Note: The suggestions listed and discussed in this section are not arranged in order of importance. Obviously, such an arrangement would be impracticable.)

1. Pertinent information concerning the individual pupil should be assembled and use made of the data gathered.

Other things being equal, guidance is effective only to the extent that it is based upon an adequate knowledge of the pupil. Only in-so-far as the pupil is understood can he be helped. The scientific movement in education has brought forth many techniques for studying children and for collecting valuable data concerning them.¹⁰ Objective facts are important and much can be secured in this field. Subjective judgments recorded by competent lay and school people should also have an important place in the history of a pupil's growth. Such information as the health record of the pupil, achievement and mental test scores, scholarship record, extra-curricular and out-of-school interests and experiences, hereditary influences, social and home conditions, purposes and ambitions, personality tendencies and modifications are important and valuable data to assemble concerning the individual child. This study of the pupil should be as scientific as possible and should be continuous. It must be kept in mind, however, *that the only value in assembling data of the kind described is in the use made of them.*

It is important to realize that an individual grows as a unit and that any fact or bit of information concerning him has significance only as it is related to his whole personality growth. If the guidance objective of helping a child grow in a wholesome, balanced way is to be achieved, then all information concerning him should be assembled in one place and should be available at all times. The pupil, his parents, and his teachers should sense the value of this information and it should be used in the solution of his problems. This information should not only show his condition of growth at a given

¹⁰M. Fisher: "The Cumulative Record as a Factor in Guidance," *The Journal of Educational Sociology*, (V:6, 344-358), (February, 1932).

time, but should reveal a complete picture of his development during his entire school experience. A cumulative record embracing all factors entering into his experience and growth and containing all pertinent data concerning him should be begun in his earliest grade in school and be continued with him through his entire school experience. Such cumulative records as those designed by the Department of Secondary-School Principals, N. E. A., The American Council of Education, and the Personnel Records Bureau of New York City are procurable. Or, a school system may well devise its own to satisfy its own needs and objectives. In general a folder or envelope in which may be kept all of the records pertaining to one pupil is preferable.

Intelligent use should be made of the information contained in cumulative records toward the end of understanding the child and helping him in a constructive manner to further his growth. It is important to realize that any individual is not a simple, obvious character, but really a complex individual personality quite different from any other. He represents not only his native tendencies, but the many different forces which have modified his life. Intelligent use of cumulative records of the kind suggested is a challenge to school people and must, in the final analysis, be measured by the understanding and efficient efforts made to help children "grow".

2. Data and information collected about individual children should be interpreted and used to modify the whole school program.

Data assembled about individual pupils will be interpreted in collective form by an alert and efficient school organization to modify and direct everything it does. Information concerning individual pupils and the efficient functioning of correct guidance procedures are a most sensitive means to be used in guiding the school staff in the solution of school problems and the adjustment and modification of the means employed in its program of education. There will be discovered in this data and through the procedures of guidance, if properly evaluated, either evidence justifying the type of local school organization and administration employed, curricula, and courses of study as organized, methods of teaching and class room methods in vogue, and general and specific educational objectives of the school program professed, or reason to modify these. These

means of education of the pupil should be made over as evidence of need is revealed in the study of the effects on the individual child and in this way the educational efficiency of the school improved. The value of guidance procedures as instruments of school supervision has been little realized and appreciated by school people.

3. The organization and administration of the school as a whole and in its parts should embrace maximum flexibility and adaptability.

Theoretically, schools are organized to educate individuals. There has been a great deal said and written about mass education. Whatever may be spoken of collectively as mass education is simply the sum total or aggregate education of the individuals who compose the mass. Obviously, education must center around and in the individual. It is not to be denied that there can be and are evils resulting from the problem of educating large numbers of individuals frequently spoken of as mass education, but there need not be. It is possible to educate each individual to the extent of his potentialities, even if he is one of a large number. While we must have general standards by which to measure individuals, yet we should also think in terms of individual standards for each pupil, such standards to be set up in terms of each individual's possibilities. With such an ideal it is possible to provide for the maximum growth of each individual, to train in leadership as well as in followership, to educate the inferior as well as the superior, and to achieve the real goals of a democratic system of education. The adoption of such an idea, however, means there must be a maximum of flexibility and adaptability in the organization and administration of the program of education. Then, and only then, is the most effective guidance possible for each and every pupil.

This flexibility and adaptability should be reflected in the organization of a varied and differentiated program of studies as has been shown in the discussion of Issue IV in the *Report of the Committee on the Orientation of Secondary Education*. There should be, ideally speaking, curriculum opportunities to satisfy the interests, abilities, and needs of each pupil. This does not mean that there shall not be a common core of educational experience for all pupils for the purpose of building social wholeness, but it does mean that this experience may be differentiated to meet the needs and abilities of different pupils and

that there may be added thereto quite different educational experiences for different individuals according to their interests, needs, and capacities.

Maximum flexibility and adaptability make possible the kind of instruction that reaches the individual. Various schemes, such as homogeneous grouping, intra-class grouping, the project method, the laboratory method, honor work, seminars, and the like may lend themselves in specific situations to a better kind of instruction that makes it possible to reach the individual. Any kind of class room organization or teaching method which aims at the best kind of learning on the part of the individual is worthy of trial.

Administrative procedures, likewise, should be as flexible as is consistent with sound organization. The ideal of adjustment to the need of the individual should prevail as long as there is no real detriment resulting to the social group. Grading, marking, promotions, schedules, discipline, and the like admit of a great deal of flexibility and adaptability, not generally appreciated, which will contribute to the best growth of the individual pupil and consequently, make possible more effective guidance.

The curriculum experiences and whole school life of the pupil should afford opportunities for every pupil's success in something, should satisfy his needs for new experiences, for security, for social approval, and appreciation. He should be able to find something to "tie to", some desirable objective for him which he is willing to work. The really important thing is not in which subject or experience a pupil finds these satisfactions, as long as such are socially desirable, as it is that he get them somewhere—and this may be the soundest justification of a varied program of school experiences. Satisfaction is basic to the needs of every individual and to his further growth. It is the business of the school to arrange the school life of the pupil to provide it to the maximum extent possible for each pupil.

4. The school should aid the pupil in making wise choices.

The aim of guidance should be to help the pupil make wise choices and decisions. He will have to choose curricula, subjects of study, a life career, possibly a higher institution of learning, school activities, ideals, as well as make numerous minor and daily decisions. It should be realized that a child's

own judgments are necessarily immature and frequently invalid. He does not always see what is best for him and he is not always qualified to decide by himself what he needs. He therefore needs help in developing the ability to make wise choices. The wisdom of anyone's choice is obviously not a matter to be determined by purely objective means, *but the school may fairly judge a pupil's choice "wise" if it represents as reasonable a decision as an intelligent adult thoroughly conversant with the pertinent factors might have made under the circumstances.*

The school is in a strategic position to give this help to the pupil although it does not intend or attempt to replace the parents. In fact, the primary justification for schools is the assumption that such an institution is needed to guide and help the youth of our society in their development. The school has a unique opportunity through its long period of contact with the pupil, because of its opportunity to study him carefully, because of its experience background of dealing with other children, and because of its peculiar character to give a kind of valuable guidance not likely to be secured elsewhere.

It is not over-stating the case for guidance to assert that all pupils need and merit this guidance service on the part of the school. Of course, they will need varying degrees and kinds of help. Some will need less, others will need more. It is hardly conceivable that there is any child who is capable of making all of his decisions by himself and needs no help whatsoever. The kind of study advocated in an earlier part of this discussion should reveal each pupil's needs in this respect. It is granted that the help given to a pupil calls for a delicate understanding on the part of the school, as to when and how assistance should be given and when he should be left alone. It cannot be too strongly urged, however, that the aims of a school should be to give positive, helpful guidance to each pupil as needed instead of thinking of guidance as being a corrective, remedial treatment reserved for "problem" pupils in the negative sense of the term.

Three pertinent elements which enter into the making of wise choices are experience, information, and advice.

The school life of a pupil should be so guided that he will have such experiences as will help him in making wise choices. If it can be avoided, there should not be a gap between his ex-

periences and the choice which he may be challenged to make. The difficulty in helping immature pupils make wise choices may often be due to this factor of lack of experience background necessary for such choices. This has been particularly true in vocational choices, but is also evident in certain educational choices such as the selection of a foreign language from a field of two or more offerings, for example. As argued in the discussions of Functions III, IV, VI, and VII, especially, much of this valuable experience can be provided in pre-view, pre-vocational and exploratory courses intelligently related to the pupil's curriculum and extending in the direction of promising interests that are well founded.

The information necessary for wise choices may be secured from many sources and are of various kinds. Information about self may come from a scientific interpretation of personnel records and the school history of the pupil. Types of revealing and exploratory courses mentioned above will help the pupil find his interests and realize his abilities. Information concerning vocations will be afforded by survey courses, study of occupations, etc., and a very good understanding of the elements entering into the technique of making vocational choices can be taught in the secondary school. Information concerning opportunities for education in higher institutions of learning can be secured from their catalogs and the official representatives of these schools. The technique of searching for pertinent information which should be factors in any choice can and should be developed in the secondary school.

Advice should be given by school staff members qualified and trained to act as counsellors. By and large, this advice will be more valid if concerned primarily with what is popularly termed school guidance. Recent studies seem to prove the validity of results from guidance pertaining to school choices, but afford no very tangible evidence that vocational guidance, in the strict sense, has borne much fruit. The members of a school staff, because of their own experience and training, are better qualified to give real advice about educational choices. Most of the information which they possess and which they find possible to secure is about schools and pupils in school and they are, therefore, able to give valid suggestions to the pupil in his educational experiences and those affecting his immediate social adjustments. Also, the pupil's pressing problems are, for the most part, concerned with his adjust-

ments in school and to his world in which he is now living. When a pupil is ready or compelled to make specific vocational choices, then the school should help him make as wise judgments as are possible. However, as was suggested in the discussion of Issue V, in the Report of the Committee on the Orientation of Secondary Education, it seems sound to assert *that the correct guidance approach to the selection of a college or a vocation is to begin with a study and understanding of the pupil, assist him step by step in his unfolding and development in the life he is living in school and out of it, and, when the time comes, help him make his selection of college or vocation in terms of his native ability, interests and acquired training.* Too frequently this process is reversed, resulting in inefficient guidance and, altogether too often, in much real harm to the pupil. This does not argue against the setting of goals and objectives, for the value of such are granted, but it does argue against selecting a college or a vocation for a pupil long before his interests, needs, and abilities are determined and trying to mould him to that choice. Such is not guidance in the true sense of the term.

The functional kind of advice is that which is given the pupil when he himself feels the need of it. Advice given at other times is quite artificial and generally ineffective. This feeling of need on the part of the pupil should grow out of his own natural developmental experiences, but it is also the school's business to arrange these school experiences so that he is challenged to make decisions, many of which he can make alone and others in which he will gratefully accept the help of adults. While a pupil should be constantly acquiring experiences and information long before he is faced with choices of major importance, which perhaps he has not anticipated, but which wise adult leaders have realized he will have to face, advice can only be given him effectively at the time he feels the need of it in evaluating himself, his experiences, his information, and the alternate decisions to be made with their implications.

Although it is important that a pupil be trained to make his own decisions, aided by his parents, of course, it should be said here that the school can hardly escape responsibility for many of the choices he makes or fails to make. Although every possible means should be employed to lead the pupil and his parents to assume responsibility for the decisions which are

made, yet the school in giving or not giving satisfactory experience, information, and advice must, in the final analysis, share this responsibility. Further, a major responsibility of the school, from the standpoint of society which supports it, is to do all it can to help individuals develop to their maximum power not only for their own happiness, but for the best interest of society as a whole. Consequently, it seems evident that the school should devote itself to the objective of doing all it can to help pupils make as wise decisions as is possible.

IV. Organizing a School Staff for Guidance

There is probably no one way better than another of organizing a school staff for guidance. Monograph 14, Programs of Guidance, of the National Survey of Secondary Education describes many different kinds of organization being used in this country. In the last analysis, the kind of staff organization as well as the means of guidance employed is a matter to be determined by the needs and possible services which may be existent in the local school situation. There are, however, a few pertinent suggestions which may well be listed here.

1. The school staff should be so organized that each pupil will be under the guidance of some staff member who will assume the two-fold responsibility of knowing as much about the pupil in all his characteristics and relationships as is possible and, at the same time, be thoroughly acquainted with all the educational opportunities which the school affords. These staff members should assume the challenge of bringing all of the resources of the school to bear on each pupil in such a way as to cause his most satisfactory development.

2. Every member of the staff, in whatever capacity he functions, should be made to realize his opportunity and challenge in the guidance program. His approach to and contact with the pupil should be flavored with the guidance technique, *that of making the child feel he cares what happens to him and that he will give him all possible help in aiding him to set up and achieve worthy and challenging objectives.*

3. The school administrator, particularly, should be earnestly committed to the importance of the guidance function in education and devote himself to the training, leadership, and utilization of his staff in the most effective manner possible to carry out this responsibility of the school.

4. It should be realized that teachers possess uneven knowledge of the school's educational opportunities, of requirements for admission to higher institutions, of vocations, of differences in pupils, of mental hygiene, of health problems, and of the philosophy of education. They also vary in their own ability and personal qualifications to give guidance. The simplest form of organization of the school staff for guidance is to use the teachers in their various capacities as class room instructors, club and extra-curriculum sponsors, and home room advisers. *It should be realized, however, that they need the assistance of an adjustive, compensating, directive organization to make up for their divergent points of view and even, perhaps, of their deficiencies.* In the small school, the principal may perform this service aided, perhaps, by a committee on guidance. In larger schools, members of the staff qualified by natural ability and training may well be relieved of part or all of their other duties to act in this capacity. Special services of psychologists and psychiatrists may be added in case of need and where resources will permit.

It should be appreciated, however, that any school can organize to give guidance. It is wise to begin in a small way and multiply and increase these services as they are needed and as they can be afforded. *Cost of effective guidance is not an expense, but is an investment; it is not an extravagance, but is an economy, if evaluated in terms of successful and competent personalities developed and failures avoided.*

CURTIS H. THRELKELD.

FUNCTION VIII

To use in all courses as largely as possible methods that demand independent thought, involve the elementary principles of research, and provide intelligent and somewhat self-directed practice, individual and coöperative, in the appropriate desirable activities of the educated person.

INTRODUCTORY SUMMARY

As the institution which brings the formal education of the great majority of people to a close, the secondary school has a very definite responsibility and function. It should see to it that those individuals whose formal education it terminates have in so far as possible reached the point where they can continue their education on an informal and independent basis and are capable of intelligent self-direction in the appropriate and desirable activities of an educated member of society.

This capacity for intelligent self-determination in the light of one's social obligations is a fundamental civic virtue in a democracy. It is also a virtue in personal living. To conceive of intelligent action, to take such action, and to abide by its outcomes means to substitute reason for sheer authority—in civic relations as well as in the daily round of duty. Nor is this all. A sense of having acted intelligently is indispensable to the mental security of a thinking person. Furthermore, if intelligent action eventuates in successful accomplishment, it carries with it the added reward of personal freedom. Freedom should not be thought of as mere release from difficulty; it comes from mastering obstacles by incorporating them into a successful scheme of action.

If the school is to function usefully in a democratic society and in the lives of intelligent individuals, it must by its spirit and its program provide and encourage opportunities for independent thinking and self-directed activity. These terms are neither mutually exclusive, nor are they antagonistic, as some people have thoughtlessly supposed. They are both aspects of the complete unit of behavior and exist in harmony

and balance in any truly educative experience. The aspect of "doing" gives a feeling of reality to learning and provides it with drive or purpose; the aspect of "reflective thinking" gives it enriched meaning as well as a sense of security, of achievement, and of freedom to the learner.

Translated into terms of school organization, this view implies that the life of the school should be built around purposeful activities to give it reality, but that reflective thinking should be included as a necessary element in activity to give to school experience rationality, richness, and the promise of personal growth and freedom. In terms of teaching it means that the primary work of the teacher becomes guidance. Inasmuch as the learner is not "plastic clay" to be moulded into some predetermined form, but is a "going concern" with needs, desires, and purposes of his own, it is the function of the teacher to help him formulate his purpose in the light of his needs, to reformulate them from time to time, and to choose the most effective activities by which his purposes may be realized

The construction of the school curriculum around activities selected on the basis of how well they meet the needs and purposes of the learner would mean the abandonment of courses of study as formal, predetermined bodies of facts-to-be-learned, but it would not mean the elimination of subject-matter in every sense of the term. Out of the coöperative search of child and teacher for a factual background to the activities of the school would emerge bodies of information, some mainly scientific, others mainly historical, or mathematical, or literary, or social. The fundamental difference is that information would be subordinate to education and placed in proper relation to it. The felt needs of the pupil would be the point of departure for curriculum construction and the learner would participate in planning and evaluating the activities of which the curriculum was composed. The primer of democracy would then replace the manual of authority as the basic text of the school.

When reduced to its bare outline, the argument behind this function of the school is simple and plain. If independent thinking and intelligent self-direction are indispensable elements in the life of a democratic state and in the activities of the educated individual, then from the very logic of these

facts secondary education must in the manner suggested provide for its pupils opportunities in which their intelligence may function independently, in which their faith in intelligent action may be strengthened by its good results, their mental security safeguarded, and their sense of freedom through the mastery of difficulties enlarged.

It is a truism to say that a democracy can be successful if its members are prepared to participate more intelligently and responsibly in planning and managing its affairs.

Democracy is founded on the belief that the mass judgment of the people is sufficiently sound to direct its political authority. Such a theory must of necessity presuppose that the social and political education of the people in some measure keeps pace with the advance in science, technology and economics. It must of necessity presuppose a development in self-discipline of the individual if he is to participate intelligently in the ever-gaining complexities of national life.”*

The discipline and the intelligence here referred to have been regarded since the very foundation of the republic as essential to its safety and its development, for a democracy demands much of its members. Responsibilities of membership are such that the citizen must be forever weighing and evaluating and revising purposes and plans. His world is not a static one; it is an evolving one in which he shares responsibility for the direction of the development. Nothing less than a profound faith in the methods of intelligence and skill in their use will enable him to acquit himself creditably as a citizen.

Also, he must get whatever mental security he can from “faith in intelligence” rather than from reliance on authority. Having purposed as generously and planned as wisely and painstakingly as he can, he must be capable of biding the outcome patiently and confidently.

Freedom also must take on new meaning for the citizen of a democracy. It cannot connote only the sense of release that comes from bonds removed, regardless of whether they were removed, by his own efforts or by the graciousness of a benevolent dictator. The term must have the richer connota-

*Charles W. Taussig. *The Nation's Schools*, Vol. 18, No. 6, December, 1936.

ton of the emotion which accompanies the overcoming of obstacles by intelligent effort or rather which comes from the incorporation of obstacles into a personally significant and satisfying scheme of action.

Faith in intelligence, mental security rooted on that faith, freedom as a concomitant of successfully intelligent action—these constitute essential qualities of life in a democracy.

How shall the school participate in developing citizens for such living? Obviously, only if it provides a school life characterized by these qualities, for, having faith in intelligence, feeling secure on the basis of ones own planning, appreciating freedom as a concomitant of intelligent action, are not qualities which emerge mysteriously or suddenly or without intent on the part of someone. They develop gradually throughout a long experience in democratic living; and childhood is none too early to begin that type of living. In fact, unless it does begin in childhood, it is probable that it never will flourish, for if an adult is imbued with faith in authority and if he gets his mental security from relying on the dictates of others, and if he regards freedom as a gift bestowed by benevolent powers, he cannot make himself over suddenly so as to qualify for democratic living. And the school which has helped to make the other type of life satisfying cannot be said to have served democracy well. In fact, it may justly be accounted a major enemy of democracy.

Appreciative of this, American education has of late, in one way or another, placed stress on "thinking". Educators haven't, however, always distinguished "knowing how to think" in the sense that one can "state the steps in a thought process" or "can talk about thinking," from the "actual ability to proceed intelligently in the face of a baffling situation" or "getting pleasure and satisfaction from intelligent behavior" or "having faith in the methods of intelligence and getting from them ones sense of mental security." Consequently, there have been abortive efforts called "courses in how to think" or "courses in the scientific method"—abortive because they are abstracted and separated from the process of successful living. There is no substitute for intelligent living as a means for developing ones ability to live intelligently or as a means for acquiring a preference for that as a way of living.

This misconception as to the process through which we learn to live more intelligently has its roots in an old dualism which has clogged our thinking about education these many years. This dualism is the one which breaks up experience into its "doing" or "undergoing" aspect and its "thinking" aspects, and sets these over against each other as mutually exclusive, and even as mutually opposed, aspects of an educational experience. This "either or" emphasis has given us at times a sterile manipulation of symbols in accordance with formal patterns and at other times, notably of late, an emphasis upon "activity" as such, and upon doing for its own sake. Either type of over emphasis leads to futility educationally. The truly educative experience is the one in which each of the above aspects receives its due emphasis.

It is true that there is in each experience, no matter how much it is a matter of reflection, some element of "undergoing" and "enduring"; and likewise there is in each experience some element of choice, deliberation or purpose, no matter how elemental or "raw" or apparently lacking in the characteristics of reason it may seem to be. But if the experience is to be educative, the values involved in each of these aspects must both be emphasized by the teacher. From the "doing" or "undergoing" aspect must come a feeling of "reality", must come drive and purpose; from the reflective aspect must come enriched meaning and a sense of security, of achievement, and of freedom.

Therefore, when we emphasize the importance of having school life seem "real" and worth while to children, and consequently organize that life into activities, we must not overlook the equally significant educational requirement namely, that we develop the "activity" into something more than mere "doing", through the instrumentality of thought, so that it becomes an "intelligent" and rich and free and growing experience.

Another idea about the school which has tended to minimize the importance of the reflective aspect of experience is the idea that teaching consists essentially of "imparting knowledge", "telling people things", "handing out information", "knowing all the answers". In this idea there is also emphasized the fact that the learner is impressionable, that he is "plastic clay" to be molded into a predetermined form.

Now as a matter of fact the learner is a "going concern" with needs and desires and purposes of his own most of which are good and in harmony with his own best development. For instance, the child needs and desires:

1. To maintain and improve his health.
2. To develop satisfying recreational activities.
3. To develop his system of moral and aesthetic standards.
4. To acquire useful skills such as reading, writing, etc.
5. To acquire a personally and socially significant body of information about the world in which he lives.
6. To live effectively as an accepted and respected member of a group.

In this respect he is at one with the committee that write the Cardinal Principles of Education and the present Educational Policies Commission of the N. E. A. He is lacking probably in the ability to formulate some of these purposes and in the ability "to suggest means for their realization". His education will consist of just the formulation and reformulation, indefinitely, of these purposes in terms of the means which we make available to him. Our function, as older and wiser heads, is to encourage and guide him in this reformulation of purposes and in the choice and control of means for their realization. Education, thus conceived, becomes guidance, and instead of the old emphasis upon passivity and docility, we get an emphasis upon purposefulness and upon action with reference to foreseen consequences. In other words, we secure an emphasis upon intelligent living.

The school has been likened to life. In fact, we have said that "the school is life". But it is more than that; it is "better life",—"life directed by intelligence". For while it is true that the child's life would have in it purposes to which we have referred whether he went to school or not, it is also true that without guidance, these purposes would not be definitely formulated nor would they be reformulated on progressively higher levels, nor would any very high degree of control result over the means through which the purposes are realized. School presumably provides this guidance and it does it through the medium of activities in which child and teacher act together deliberately choosing means in light of consequences which both foresee and desire.

If our thinking about the nature of educative experiences and about teaching up to this point is sound, it seems as though there would be little point in introducing courses into our secondary school especially designed to teach children to think. On the other hand, it does seem that there would be good reason for overhauling our secondary curriculum so that the school's activities will be more significant and compelling to children and so that there will be abundant opportunity for the children to help direct and evaluate these activities.

Criteria for Evaluating School Activities. Of first consideration in such a revision of our curriculum would be not the specific facts or skills or attitudes set out in advance as characteristics of the educated person, but rather the "mode" or manner of the activity itself. And it is here proposed, without any attempt to justify the selection by argument, that an activity, if it is to be educative in the sense emphasized up to this point, must have the following characteristics:

1. It must take as its point of departure some need or problem or confused situation which the child desires, or can be led to desire, to have cleared up. This is in contrast with having the activity originate arbitrarily or dictatorially or in a way which is meaningless to the pupil.
2. It must permit of participation by the child in planning the sequence of events through which the difficulty will be removed, the problem solved, the need met, etc. This implies that the plan is to be for him, a meaningful one, rich in significance, and that it is appreciated by him.
3. It must permit of the exploration of new and unforeseen avenues revealed in the course of the study; and the results of these excursions must be permitted to enter in as factors in a reformulation of the original purpose.
4. It must, in so far as it is a coöperative venture, be democratic, i. e., it must involve responsible participation by all in terms of individual interests and abilities.
5. It must permit of the acquisition of a body of personally and socially significant skills, information, and attitudes.

It is here assumed that such activities will be educative in the sense required for democratic living. It is assumed

that the teacher's function will be one of guidance, first, in helping to formulate the purpose to which the activity will give expression and, second, in helping to select and evaluate means for the realization of the purpose. Her function in this respect need not differ whether she teaches in the elementary, the junior high school, or the senior high school.

What would the application of such criteria do to our present secondary school curriculum? It would probably require the abandonment of our present required and formal and standardized courses in algebra, plane geometry, physics, chemistry, English, ancient history and medieval history. As standardized, pre-planned, and arbitrarily imposed activities, they have no legitimate place in secondary education. It would be almost miraculous if they met the criteria we have set up. Even though they do now meet them for some children, it is rather safe to assume that they do not meet these criteria for the great majority of those who attend American secondary schools. This amounts to saying that they do not permit of the acquisition of a body of personally and socially significant skills, information, and attitudes; that they do not take as their point of departure felt needs of children; that they do not involve participation by pupils in the planning and evaluation of school activities; that they do not meet the requirement that as group activities they be democratic, i. e., so organized that each child participates in them as coöperative ventures in terms of his individual interests and abilities. In fact, there is not much that can be said for them as generally taught as training experiences in democratic living.

It must not be assumed however that their disappearance as formal predetermined bodies of fact-to-be-mastered means that English and history and mathematics and science and art will therefore disappear from the curriculum as subjects. Out of this search on the part of the child, guided by the teacher, for personally and socially significant knowledge will emerge bodies of information which will be mainly scientific, others which will be mainly mathematical or historical or literary or social. This cannot be avoided even assuming that we should want to; and I see no reason for wanting to.

In the process of acquiring and organizing these bodies of significant fact the child's intelligence will have functioned, and since he has shared with others this pursuit of knowl-

edge, his intelligence will have functioned with respect to a coöperative venture. He will have lived with others in an increasingly intelligent way. He will have come to have faith in intelligence; whatever mental security he has will rest on this faith; and he will have come to cherish freedom as an aspect of intelligent activity and not as a gift from the powers that be.

FUNCTION IX

To begin and gradually to increase differentiated education on the evidence of capacities, aptitudes, and interests demonstrated in earlier years. Care must be taken to provide previous to and along with differentiation as balanced and extended a general education as is possible and profitable.

INTRODUCTORY SUMMARY

The first concern of the school is to help pupils understand their cultural heritage and participate successfully in the common activities of life. Schools therefore devote a large share of their efforts to providing a "general" education for all. Even in secondary education, as distinguished from elementary education, there is a strong tendency to emphasize the universal rather than the specialized aspects of formal training. This tendency is increasing with the years.

Two principle reasons may be given for the current trend toward more "general" education in the secondary schools. In the first place, modern life exacts so much from the individual that no one of us can be happy or successful without a greater degree of competence in a wide variety of activities than our ancestors thought necessary. In the second place, we have more time to devote to the general aims of education. Most young people are now withheld from remunerative employment so long that there is less need than formerly for an early specialization of individual talents, and greater opportunity is afforded for developing the fundamental skills which all should possess.

It is a mistake to assume, however, that the outcomes desired of education, including those which should be common to all pupils, are at all times best served by offering in the

¹Attention is called to the discussion of Issues IV and V in the Report of the Committee on the Orientation of Secondary Education: *Issues of Secondary Education*. Chicago: Department of Secondary-School Principals of the National Education Association, Bulletin No. 59, (January, 1936). The reader is also specifically referred to the discussion of Function I for a treatment of "integration of students" through secondary-school activities.

same way an identical program of studies to each pupil. Diversity should characterize the school program if for no other reason than to prepare pupils effectively for the general activities which all are expected to take part in. The contradiction which this principle seems to present may be explained on the basis of individual differences. While all pupils are alike in some respects, they differ in others. Their differences become intensified during the age of adolescence, and the secondary school finds itself dealing with a multitude of pupils who must be educated in a multitude of ways even if similar educational outcomes are envisioned for all.

In addition to its usefulness in adapting the curriculum and methods of instruction to the individual differences of pupils, the principle of differentiation has a place in education in its own right. In cases where the secondary school is the terminal educational institution for a pupil—which is not the exception but the rule—it cannot neglect to provide in the closing years of his schooling for such a development and specialization of his personal talents as will give him competence in the beginning stages of some selected vocational field. Even in cases where the secondary school is preparatory to higher institutions of learning, a degree of differentiation, whether it be always wise or not, is necessitated by the varying requirements for admission prescribed by the colleges, universities, and technical schools. Finally, some differentiation, apart from these considerations, can be justified on the ground of respecting the legitimate interests of the pupil.

There is, therefore, little difficulty in showing that differentiation in education is necessary. The great problem is to determine correctly when differentiation should begin and how much of it should be provided. With respect to this problem we may establish the principle that there should be at least enough differentiation in a pupil's education to enable him, in spite of his differences, to attain to the best of his ability the educational objectives which the school prescribes for all. Beyond this, a differentiated program may be used for the opposite purpose of capitalizing on individuality to yield a varied educational product. The extent and kind of the differentiation provided for this purpose depend upon the pupil's vocational ambition or his plans for higher educa-

tion as these may be determined from the capacities, aptitudes, and interests he has demonstrated in his previous education. But even here there are definite limits beyond which differentiation in education ought not to go. Schools should determine their ultimate policy with reference to their own resources, the temper of the community, the rival claims of all pupils, the principle that a pupil should first of all possess such competences as the interests of society demand that he have, and finally the best interests of the pupils themselves. To apply these limitations with exactness and justice in the case of each individual is so difficult that the whole problem should be the subject of a never-ending and informed study by the officers of the school. To assist in such a study is perhaps the most important service which a department of guidance can perform.

The greatest limitation upon a wise increase of differentiated education goes back, as most things must, to intangibles. The success of the secondary school in carrying out its function of diversifying its program and methods until the education of each pupil receives is suitable to his interests, capacities, and needs must depend ultimately upon the broad training, the social vision, the technical knowledge, and the initiative of educational leaders and teachers. The importance of this dependence of the school upon its staff is plain enough, and has been often pointed out, but it cannot be over-emphasized—not, at any rate, until the best minds of the profession have succeeded in making the school program function effectively for every child.

I. The Claims of General Education

General Education Defined. The term "general education" has been used for years. During this time it has had a variety of meanings. There is no doubt that the New England colonists, with their emphasis upon democratic ideals, felt it necessary that every one should have some degree of education. In theory they were all members of one social class. "Common school", a name used so generally at that time, was intended to furnish a type and amount of general education then thought necessary for everyone.

Rousseau writes: "In the order of nature all men are equal, their common vocation is the estate of man; and who-

ever is well brought up will not fail in anything belonging to it. It is a matter of little importance to me whether my pupil be destined for arms, for the church, or for the bar. Before the vocation assigned him by his parents, nature calls him to human life. To live is the business I wish to teach him. When he leaves my hands . . . he will be first of all a man."

The French Constitution of 1791 provided that: "There shall be created and organized a system of public instruction common to all citizens and gratuitous, with respect to those branches of instruction which are indispensable for all men."

Practically every state in the country has recognized by constitution and statute and generous provision of money the need and value of a certain amount of general education for all. In time there have followed laws requiring attendance for periods designed to bring all individuals through a period of exposure to a minimum of desirable educational experiences. Legislation has often gone so far as to prescribe the content of this minimum general education. The elementary schools have particularly been the victims of statutory curricular requirements.

On the other hand, a warning against the dominance of the "educational generalists" is sounded by Bagley and Prescott. Bagley feels that the subject-matter specialists could be a wholesome counter-agent to these weakening tendencies."² Prescott contends that "the most notable fact is the constantly growing impetus given to so-called social studies, and the consequent disaster that is overtaking mathematics, physical and natural science, and language. . . . The social studies are the pale reflections of the social sciences, so-called, that lie above them in the university. These social sciences have not as yet evolved any laws or even developed any scientific methods of investigation except in the very limited areas (chiefly of economics)."³

In discussing this function dealing with differentiated education we must notice, in the first place, that the contrast is between vocational education and general education. At

²W. C. Bagley: "Professors of Education and Their Academic Colleagues," in *The Mathematics Teacher*, XXII:277-288, (May, 1930).

³W. S. Gray, Editor: *General Education—Its Nature, Scope, and Essential Elements*. Proceedings of the Institute for Administrative Officers of Higher Institutions, 1934, Vol. VI, pp. 16-25. Chicago: University of Chicago Press, 1934.

this point reference is made to the definition of these two terms in Issue V of the earlier report of this committee.

Vocational education is here used to include all activities directed by schools for the specific purpose of preparing individuals for the successful participation in different fields of service. General education is here used to refer to all other activities directed by schools: namely, those which do not have reference to the particular fields of service in which individuals hope to engage. General education may promote a general increase in vocational competence through greater social maturity, more effective ways of thinking, a better command of language and the like; it may make individuals better citizens in industry through an enlightened social consciousness specifically directed towards the problems of industry, the relations of capital and labor, and the reconstruction of the economic order; but it does not differentiate among individuals as to the particular needs of society for which they will attempt to provide. Wherever educational activities provide different training for individuals according to the different fields of service in which they plan to engage, we have to do with vocational education.

Accepting the foregoing contrast between general education and vocational education, we may expand the concept of general education to say that it includes that minimum amount and type of education that all should have to make of us a reasonably homogeneous people unified by common understandings, appreciations and attitudes. General education consists of those activities in which all children will engage for the purpose of achieving outcomes desirable for all persons, such as ability to coöperate, open-mindedness, common understanding, etc. The activities included will vary from group to group and even within a group, according to the interests and abilities of the pupils. In practice, general education or, in other words the common curriculum, must be expected to produce common outcomes which will be achieved largely through common curricular material and activities. However, it must not be thought that these common outcomes can be achieved for all children through activities and the use of materials that are even approximately identical. The very recognition of the great range of differences among individuals would indicate the necessity for this conclusion. Among other factors that will condition the activities are community

attitudes, resources of the school, training of teachers and their interests.

Purposes of General Education. In even a broader way the term "general education" connotes all educational activities of an unspecialized, non-vocational sort in which a person engages. His reasons for engaging in such activities may be simply to satisfy the curiosity or interest of a vigorous restless mind. Such general education may extend far beyond the secondary level. Its purposes are well stated by Dr. M. S. McLean, Director of the General College at the University of Minnesota: "Our concept of general education is, then, one of a training process designed to make young people at home in their complex modern world rather than to give them an analytical, minute, and complete picture of the intricacies of one phase of it; to give them the chance to make themselves supple and adaptable to change rather than rigidly prepared for a single occupation; to enlarge their vision to see the wholeness of human life instead of leading them deep into microscopy, and to let them acquire a sense of values in the many phases of adult living outside the strictly vocational. We know, more than ever in these times, the need for trained leaders and researches. We need followers and understanders as well. To raise and enrich the understanding of the followers is surely one of the prime requisites in general education. Only by it, can we begin quickly to catch up the lags, can we forward rather than retard the movements toward solution of our problem recommended by those who know, but damned by those who fail to comprehend. Only by it can we in this crisis hope to nullify the prophecies and ensuing violence of ignorance and misunderstanding."⁴

The objectives of general education are stated by Prescott to be: "(1) the development of clear thinking leading to intelligent action; (2) the development of clear, convincing, and persuasive expression as the medium of expressing thought; (3) the development of an imagination sensitive to the effects of literature, music, and the plastic arts; (4) the knowledge and understanding of the history of the past and the environment of the present in those respects that vitally affect intelligent activity in our present-day world. These

⁴Ibid., p. 120.

four aims and in this order should determine the prescribed core of the curriculum through the entire eight years."⁵

Growth of General Education. Returning to our first definition of general education, it must be remembered that as long as the elementary school carried its activities into the period of adolescence by retaining seventh and eighth grades it was felt that practically all necessary general education should be completed by the end of the elementary school course. At the same time the high school, particularly in the last thirty years, has been considered the institution which should begin to offer possibilities of differentiation. To that end the high school has usually offered several different curricula. The work of the ninth grade has included the possibility of selection through the offering of electives. Even with these possibilities of differentiation which have been quite limited in the ninth grade, there has been retained in the high school a certain minimum amount of "general education", often undoubtedly with the feeling that this should not really be necessary. At times, in curricula styled "elective" this requirement of general education has been reduced to a minimum including often only two years of English and possibly a year of United States history. It is very doubtful whether those who planned such courses did so on the basis of any well thought out philosophy of education or understanding of curriculum needs.

"Required subjects" have been present in even the most flexible high school courses. The most universally included subject of this sort has been English for two or three years but we often find a requirement of a year of United States history and sometimes a year of science or a year of mathematics or both. The inclusion of such requirements has been plain evidence of a feeling amounting almost to a certainty that many pupils would be guided by whims or personal preferences in their choice of school work, entirely unable or unwilling to see the value and need of training in school to live in a broad way among men. It has equally been an evidence that the "required" subjects often had not enough vitality and challenge to meet seeming real values of some specialized type of work that has a vocational or avocational appeal to an individual pupil.

⁵Ibid., p. 21.

With the widespread change of elementary school organization to a six-year unit it is obvious that much less time is available for the achievement of general education in that unit. Principals and teachers in junior high schools complain that children, even by the close of the ninth grade, are not able to read satisfactorily and often have very slight acquaintance with even simple arithmetic processes. They find that children ready to leave the junior high school still have only a limited understanding of social needs and the problems involved in living together in communities.

The National Survey of Secondary Education made a study of the trend in the growth of general education.⁶ That survey comprehended all subject matter materials to which junior high school pupils are exposed in the following major groups: English, social studies, mathematics, science, physical education, fine arts, manual arts, domestic arts, foreign language, and commerce. A study was then made of the amount of the time devoted to the various subject-matter fields in two different periods of time, 1915 to 1920, and 1929 to 1931. The following paragraphs report the result of that inquiry:

The subject-fields cannot be sharply divided into those which contribute to the needs of all pupils and those offered to care for needs of differentiated groups of pupils. If, however, we consider English, the social studies, mathematics, science, physical education, and fine arts as contributing mostly to needs on a common-to-all basis, and manual and domestic arts, commerce, and foreign languages as contributing mostly to the needs of special groups of pupils, the total would indicate 61 per cent of the junior high school work as devoted to needs on a common-to-all basis and 39 per cent to needs of individual groups. For 1915-1920, however, the former group constitutes only 56 instead of 61 per cent of the total offering, which seems to indicate a trend toward greater emphasis on needs common to all.

For 1929-1931, as the proportion of periods allotted to the subject fields for the separate grades is compared with the average for all grades, it appears that in the seventh grade more emphasis is placed on English, social studies, mathematics, physical education, and fine arts,

⁶A. K. Loomis, E. S. Lide, and B. L. Johnson: *The Program of Studies*, pp 25, 26, 27. National Survey of Secondary Education, Monograph No. 19. U. S. Office of Education, Bulletin, 1932, No. 17.

the three first named consuming 67 per cent of all periods of work offered. It will be noted that all these are subjects listed as needed on a common-to-all basis. As contrasted with the 1915-1920 period, the social studies and physical education are shown to receive more emphasis during the late period, seemingly at the expense of science, commerce, and foreign language, in the order named. . . .

In general, it will be noted that for all grades there is shown for social studies, physical education, and fine arts, a consistent and in some instances a marked percentage of increase in the late over the early period. Contrariwise, for foreign languages and commerce, although less marked in grade nine, there are shown consistent reductions for all grades over the ten-year period.

Effects of the Reorganization of Secondary Education. The elementary school has generally been considered as the outstanding school for general education. The adoption of the junior high school organization has meant the taking over of some of the elementary school grades into this new type of secondary school. In the early years of the junior high school, two tendencies were evident. One was a tendency to bring specialized education into grades below the ninth. It has not been unusual to find vocational work in large city junior high schools in this country. The other tendency has been to extend the period of general education in a large measure up through the ninth grade. This latter tendency is the one that seems to prevail, while the former has been of dwindling importance.

Effects of Unemployment. The need of a clear concept of the term "general education" is further emphasized by the much extended periods which young people are spending in public schools at the present time. A very large proportion of our population stays in school not only through the elementary period but even to the end of the high school. This is induced not only by their ambition to avail themselves of extended educational opportunities in today's secondary schools but also by the impossibility of finding employment outlets at the end of any specified period of school attendance. As a matter of fact, we are now pretty generally aware that economic conditions are and will be such that differentiation of education in the direction of vocational preparation is likely to be considerably postponed and that the responsibility of the

secondary school for providing this type of differentiation is diminishing at the present time.

Secondary education must emphasize as of first importance integrative experiences of the individual. For an extended discussion of "Integration" the reader is referred to the discussion of this subject in Function I.⁷ It must become the responsibility not only of elementary education but also of secondary education to provide such experience. Only through these will the child be able to understand and merge himself with his social environment and with his physical environment. In other words, a child must not only acquire certain basic skills which are usually included in the activities of the elementary school but far and above this he must become a good team-worker. He must understand a coöperating society. He must have experience in school in which coöperation is necessary. He must understand the racial heritage of culture and customs. He must understand the values as well as the limitations of our political forms and institutions. In short, he must acquire attitudes and appreciations which will tend to make us one people, able to live together successfully, and able also to understand the peoples of the rest of the world.

It is hardly likely that many of these accomplishments will be wholly achieved in the elementary school. Emphasis upon these outcomes must continue throughout the secondary period if a child is to be brought to an adequate understanding of his relationship to the rest of his fellows at the time he leaves the secondary school, whether that be during the ninth grade or at the end of the twelfth grade.

As a part of its responsibility in the field of general education the secondary school must give attention to carrying forward training in basic skills. Reading and expression cannot be overlooked. Skill in penmanship must be developed for those who need it. The same can be said of spelling and arithmetic.

General education as first defined above is usually found in what are termed the constants of the program. Through such constants pupils gain certain elementary skills, achieve

⁷See also L. Thomas Hopkins: "Arguments Favoring Integration," *Teachers College Record*, XXXVI:604-612, (April, 1935).

certain understandings, acquire certain attitudes and develop certain appreciations that help us to live together with a reasonable degree of satisfaction and success. General education that goes even beyond this can find one justification in the extended leisure forced upon youth by lack of employment opportunities.

II. The Role of Differentiation

It is easy to fall into the error of thinking that because general education has in view outcomes that are common for all pupils, the materials and methods to achieve these common outcomes must be alike for all children. Such thinking fails entirely to take into account the differences in individual situations. Differentiation in material of instruction, in methods of handling those materials and in all the procedures involved in education are necessarily involved in the achievements of common objectives.

There are in the secondary schools many pupils who are quite immature mentally and vocationally. If these stay in school until graduation they will not often want to go off into specialized fields of any sort. There are others, alert and keen, who find the whole realm of human learning and experience presenting fascinating vistas to their awakening minds and broadening outlooks. Curiosity and interest lead them out in many directions. For all of these pupils opportunities for rich experiences in general education should be provided far beyond the bare necessities called for by the needs of a unified and coherent social group. Let us open for these minds the rich storehouses of the past and the present and invite them to walk with us as far as they can or will and help themselves generously. From among these will come some of our leaders. For these, general education will go far beyond those constants in the curriculum which define only that general education which is needed as the equipment of every member of the whole citizen group. Such education may give a broader culture, a wider horizon, a deeper interest in the affairs of men. Perhaps such an ideal of general education was in the minds of the Greeks when they defined and described education.

While our country was still largely rural and understanding of physical conditions surrounding them was obviously essential to young people, and it was easy to acquire. By way of contrast it is hardly necessary to point out the mechanical and physical complexity of today's living. This has been brought about largely by new inventions and the availability of new products through mass production, as well as by reason of the larger areas with which we live in close contact. It is equally unnecessary to remind ourselves how little opportunity young people have to understand more than superficially the important physical facts and principles underlying invention and production in all fields. Certainly the elementary school cannot hope to accomplish much in this direction. Again, it seems clear that the secondary schools must continue to interpret the physical world to young people as long as they attend these schools.

Differentiation an Expression of Individualism. It might seem from the foregoing discussion that differentiated education has a relatively minor place in the secondary schools. While this would possibly be a rather strong statement, we may be very sure that if one thing more than all others has been condemned in our country in the last few years, it has been that, as a nation, individualism has run riot among us. This is no less true in education than in other phases of our public life.

Discussions of the individual versus society are very common in educational literature as well as in other places today. Such discussions usually arrive exactly nowhere. The only position that seems reasonably tenable is that we cannot think of an individual apart from social relations. Three sentences are quoted from "The Educational Frontier:" "Society is individuals-in-their-relations." "An individual apart from social relations is a myth—or a monstrosity." "Education is the process of realization of integrated personalities."⁸

Children and parents alike have taken the attitude that schools must minister primarily to individual needs, desires and whims. Any high school principal can recall many instances in which parents, speaking of certain phases of general

⁸W. H. Kilpatrick and others: *The Educational Frontier*, pp. 290-293. New York: D. Appleton-Century Co., 1933.

education, have said, "I don't see what good that will do my boy." In reality, he has meant, "I don't see how this will make my boy able to earn more money." How often has he heard the contrary? Seldom, if ever! If one can sense present trends in matters economic and political it would seem that we are moving away from this individualism as speedily as we can, perhaps too speedily, in the direction of a broader assumption of community responsibility on the part of all government units. This philosophy has had rather hard going. Perhaps we have undertaken our moves too rapidly. The doctrines and practices of individualism die hard, largely because they represent interenched interests. If, however, the new direction of our public thinking is valid, is it not the business of the school to move in the same direction? Even differentiated education, therefore, will still have as its prime purpose the development of individuals more capable of living together successfully because their special "interests, aptitudes, and capacities" have been ministered to. Because the individuals have received training which makes them more competent individually they will become thereby more competent members of the group. Today's great need in education is to emphasize the common heritage, common understandings, and common problems. Even specialized education must have in the foreground of its development continually the need of more thinking together.

Reasons for Differentiations. Having said this much about the urgent and continuous need of emphasis upon general education, let us examine the matter of differentiation. It is a commonplace in secondary education that the divergent interests of the pupil are intensified in adolescence. This is distinctly a variable quantity in different individuals, but secondary education must take cognizance of the phenomenon. These divergent interests may be dictated by a variety of circumstances. They may arise out of an early pressure upon the matter of selecting a vocation, which pressure may come from economic need or from distinct dissatisfaction with the more academic side of school work. Investigations have shown that a high percentage of the children in continuation schools have gone to work because of a feeling of impatience with the usual school work found in the seventh, eighth, ninth and tenth grades. This impatience brings an urge to enter a world which

seems more real than school, a world where the adolescent may associate with men and women who are doing the world's work, a world where he may earn money which will bring him some of the satisfactions which he could not otherwise have. The desire to engage in remunerative occupation is a real fact which educators cannot overlook. It implies not only the necessity of setting up training programs, but also the necessity for observation and guidance of children and some opportunity for vocational exploration on their part.

The necessity for differentiation may also spring from vocational interests that look toward preparation for one or another college course. Since the colleges indulge their whims to the extent of considerable diversification in admission requirements, high schools find it necessary to plan diversified preparations to meet the situation. Perhaps the day may come when the colleges and universities will agree to accept all high school graduates who have shown reasonable power, irrespective of the pattern of subjects taken.

Interest in the arts or in limited fields of science or merely the student's desire to satisfy his mental curiosity in one special area may furnish the reason for making it possible for him to do some specific or specialized line of work. Of course, this provision has to be limited by the ability of the school to meet his needs with due regard to rights of others, and by his own ability to achieve a reasonable degree of success in the chosen field.

Schools with Specialized Curricula. There has been a tendency in school systems to set up secondary schools with special functions.⁹ We find commercial high schools, vocational high schools, manual training high schools, college preparatory high schools, high schools for the retarded and the socially maladjusted. It is proper at this point to inquire into the extent to which this tendency ought to be approved and what legitimate purposes such specialized schools may serve. It seems quite safe to say that schools such as commercial high schools intended to serve a special vocational group can easily place so much importance upon the specialized limited

⁹G. N. Kefauver, V. H. Noll, and C. E. Drake: *The Horizontal Organization of Secondary Schools*, pp. 14-15. The National Survey of Secondary Education, Monograph No. 2, U. S. Office of Education, Bulletin No. 17, 1932.

vocational objective that they lose sight of the continued need for general education. Too often such a school is filled with teachers and administrators drawn from industry or business who think of education only in terms of their own special vocation, craft or skill.¹⁰ The consequence is that the beginning and end of education come to be the acquisition of certain skills and we have once more the undue emphasis upon individualism.¹¹ Specialized schools intended primarily to meet the needs of problem children at the secondary-school level undoubtedly fill a need particularly in city school systems. It is presumed that such schools are equipped to diagnose social as well as educational difficulties of individual maladjusted children and are equally well equipped to apply the remedies needed in each. Many schools of this sort have been developed in this country during the last twenty-five years and have operated with varying degrees of success. If the great purpose of this specialized education is to enable boys and girls in such schools ultimately to take their places in a normal coöperating society, then the business of such schools is largely correction of attitudes and understanding in order that, after a shorter or longer period, the children may return to a normal school environment with reasonable hope of making satisfactory adjustment there. The tendency of such schools, however, has been to remove children from their normal school environment permanently and become an end institution, graduating such children or placing them on jobs of one sort or another. This tendency is one that administrators must watch and check.

What factors will determine the beginning and extent of differentiation for the pupil and for the school? So far as the individual pupil is concerned he might begin to go off into his own special field as soon as his interest or the pressure of parents or economic necessity or the influence of friends begins to be felt. He might easily try to specialize before he possesses foundation or background enough to go further than a few steps in his chosen field. The prospect of quick access to a small salary might overshadow all other considerations in

¹⁰*Ibid.*, pp. 18-20.

¹¹D. S. Morgan: "The Place of the Technical High School in Modern Education," *Proceedings of the 18th Annual Meeting*. Chicago, Department of Secondary-School Principals of the National Education Association. Bulletin No. 50, (March, 1934).

his mind. In such a situation he would almost certainly be totally unaware of the social need for further general education. With each pupil the beginning and the degree of differentiation will be a matter of study by school officers who must know as much as possible about him. This is the place where the guidance activities of the school will find their greatest opportunity to function.¹²

As far as the school is concerned, the beginning and extent of differentiated offerings will be determined by several factors. The size of the school and the financial resources of the district are very commonly known controls. Beyond these is the social vision of the educational leaders who control the schools. To these must be added in some cases the influence of very powerful business and industrial groups. Trade education may be fostered because industrialists want an adequate supply of skilled labor; or it may be restricted because labor groups seek to diminish competition in their field.¹³

It must be obvious that all of the preceding discussions but particularly those parts emphasizing the importance of general education have significance in the field of teacher training. In an increasing degree teachers must be acquainted with a wide range of human activities and with many fields of knowledge. Less and less will the teachers in the secondary field be subject specialists whose preparation and interests are limited to narrow areas. One state has very recently passed a law which requires that the teacher's major and minor subjects must be named on her certificate to teach and that boards of education may not permit her to teach in any other field. This move is entirely contrary to the spirit of to-day's education is in a direction opposite to the trend shown in a study of to-day's secondary schools.

From the foregoing it is evident that the broader understanding of the various phases of human living necessary for the satisfactory service of teachers in a modern secondary school is going to demand a longer period of preparation for the work of teaching. Such broader preparation must include wider acquaintance with many fields of human interest. Part

¹²See Committee on the Orientation of Secondary Education: *Issues of Secondary Education*, Issue II, pp. 79-128. Chicago: Department of Secondary-School Principals of the National Education Association, Bulletin No. 59, (January, 1936). See also Function X in this report.

¹³*Ibid.*, Issue V, pp. 185-211.

of this preparation may conceivably and properly take place outside of collegiate institutions in the fields of business, industry, or the arts. This cannot be interpreted to mean that teachers will not be masters of anything; it means rather that they will be both intensively and extensively trained in order that they may adequately become guides in preparing young people for the business of living.

Some of the most difficult problems which secondary education has had to face in the past have arisen from the extreme diversification of the curriculum. These problems have arisen out of difficulties in securing highly specialized teachers with sufficient technical skill, the problem of finding sufficient pupils to keep such highly prepared specialists busy, the question of finding money enough to purchase adequate equipment for specialized work and similar lines. With a great emphasis upon general education, and with a diminishing emphasis upon highly specialized activities, the secondary school should find its problem considerably simplified. On the other hand, we may expect that a return to a period of prosperity will undoubtedly increase employment opportunities and at the same time increase the demand on the part of parents, children, and employers for greater differentiation and a much higher degree of specialization than is now the case.

For elaboration of some of the points of view above, reference is made to the following:

- Thomas H. Briggs: *Secondary Education*, pp. 282-85. New York: The Macmillan Co., 1933.
- National Survey of Secondary Education, U. S. Office of Education Bulletin No. 17, 1932, Monographs No. 2 and No. 19.
- B. P. Fowler: "Disintegrating Tendencies in Departmentalized Education," *California Quarterly of Secondary Education*, Vol. IX, No. 4, p. 320, (June, 1934).
- W. B. Featherstone: "The Place of Subjects in an Integrated Curriculum," *California Quarterly of Secondary Education*, Vol. IX, No. 3, p. 235, (April, 1934).
- Kilpatrick and others: *The Educational Frontier*. New York: D. Appleton-Century Co., 1933.
- Cox and Long: *Principles of Secondary Education*, Chap. XXI. Boston: D. C. Heath Co., 1932.

- L. Thomas Hopkins: "Arguments Favoring Integration," *Teachers College Record*, Vol. 36, pp. 604-612, (April, 1934).
- W. S. Gray, Editor: *General Education—Its Nature, Scope and Essential Elements*. Proceedings of the Institute for Administrative Officers of Higher Institutions. 1934, Vol. VI. Chicago: University of Chicago Press, 134.

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FUNCTION X

To retain each student until the law of diminishing returns begins to operate, or until he is ready for more independent study in a higher institution; and when it is manifest that he cannot or will not materially profit from further study of what can be offered, to eliminate him promptly, as wisely as possible directing him into some other school or into work for which he seems most fit.

INTRODUCTORY SUMMARY

In terms of function, every social institution may be said to have the threefold task of selecting the individuals it will serve, of retaining them during the period of its service, and finally of eliminating them when its work is done. The school is no exception to this rule. Ideally, its function of selection is to bring all normal young people under its influence; its function of retention is to keep them in regular attendance while it provides them with the education both individually suitable and socially valuable; and its function of elimination is to discharge them into wholesome employment as soon as they are fully ready for it, or into higher institutions of learning as soon as they can qualify in all essential respects for admission.

In recent years, fundamental economic and social changes in conjunction with the democratic impulses of the people have helped the school to approximate the ideal with respect to the selection and retention of pupils. As everyone knows, the secondary schools of America are now crowded with a larger proportion of youth than has ever been enrolled in the schools of any other country or in any other period of history. As a consequence, the secondary school has been forced to attend to the needs of nearly all boys and girls whether it wanted to or not. Likewise, the problem of retaining pupils, once very difficult, is now largely solved because the virtual impossibility of securing employment at an early age encourages young people to remain in the schools. But at the same time that underlying conditions have tended to solve the problems of selec-

tion and retention, they have complicated the problem of elimination by making it very difficult to terminate a pupil's schooling when he fails completely in his studies. The effect is to create a serious dilemma for the educator. In case of complete academic failure, he neither wishes to direct the pupil out of school into an inhospitable world, nor does he know how, with the resources at his command, to give to the pupil the kind of education suited to his needs.

Most educators would naturally prefer to break the impasse by modifying the school until education became profitable to each pupil regardless of his status. But this is clearly impossible unless society is able and willing to provide the funds needed to differentiate the school program to fit the needs of each pupil. Meanwhile the school must frankly face the necessity either of eliminating many pupils prematurely or else of continuing to deceive the public about the effectiveness of education while wasting the taxpayers money to keep certain pupils in school when, except for the incidental protection schooling affords, it would be better for them and for their fellow students that they be eliminated and, if possible, put to work.

Of the two evils, the lesser is undoubtedly for the school to eliminate all pupils who are no longer making progress in the most suitable program it can offer, and by so doing to remind the public that it is the public's responsibility not the school's to provide for them. Perhaps the public will then respond by seeing that those eliminated are given work to do. But if such pupils are kept on at school, they face immediate discouragement or disillusionment, they retard the progress of other pupils, and they waste time, effort, and money in futile efforts, or lack of efforts, to derive some benefits from their schooling. The ultimate solution to the problem may be found in appropriating enough money to differentiate the school program until it serves all pupils, or in establishing entirely new types of schools, or even in social revolution. But these are options on which the public not the schools must decide. Pending a decision, the school should promptly eliminate a pupil as soon as it becomes perfectly clear that he can no longer profit materially from any program the school can offer. If the school is designed by society for educational

rather than custodial purposes, it can in all honesty follow no other course.

There are, of course, many difficulties in eliminating pupils from schools under any circumstances. There is always the difficulty of estimating accurately the ability of the pupil and of reconciling parents to a disposition of their child that differs radically from their own hopes concerning him. Added to these obstacles is the lack of knowledge as to how education, especially in the case of smaller secondary schools, can be made more effective for individuals who do not respond to the old methods and materials of instruction. When these difficulties are considered in connection with the tardiness of the public to understand and support what the schools are trying to do to liberalize the curriculum, it seems likely that educators will find it hard, for a longtime to come, to eliminate pupils at the exact time when their education should cease.

Although elimination in the ideal sense of directing pupils into constructive employment or into higher institutions of learning must wait until either one or the other of these opportunities is open to all young people, educators ought not to neglect their present duty. The first step they should take is to agree upon the provisional principle of elimination as here stated and to use it courageously and consistently as a guide to their actions. Then as the people come to see that public education is a social investment and not a benevolence, the necessary funds may be appropriated to fit the school to the needs of all. Otherwise the public will have to care for many young people by other means than schools. Whatever the ultimate decision rendered, there is one further thing which educators should do. They should learn all they can about the individual pupil, his needs, capacities, interests, and aptitudes, and be prepared to guide him into the most appropriate of all the opportunities for development, in school or out, which society makes available for youth.

I. Historical and Present Practices

The common practice of the foreign countries that have most influenced our schools was, and still to a large extent is, to admit to secondary education only a selected group of youth and to eliminate promptly and inexorably those who fail to manifest success in their work. The elimination carried with

it no sense of responsibility for what happened afterward to those who were eliminated. This practice and this attitude, mitigated somewhat on occasion by personal sympathy of master for luckless youth, were naturally adopted by our early schools and long continued dominant. Doubtless, however, as fees were paid for instruction, judgment as to the time when a student should be eliminated was softened by the prospect of decreased income.

In earlier days relatively few youth had aspirations to attend secondary schools; and although only a small per cent enrolled, there did operate a rough sort of selection that secured groups probably well above the average of the general population in ability. But even under such conditions the elimination from secondary schools was enormous. It has always proved difficult to ascertain from pupil, parents, or school the real reason for elimination; but it is safe to assert that the majority of those who dropped out of secondary schools before graduation did so for one or more of several reasons: they could not under the conditions succeed; they saw little value in the curriculum offered; and they were more attracted by the lure of life, especially by desire to enter upon remunerative vocations, than by the fetish of higher education, which was far less strong then than now. Whatever the reason, they left without causing the school to feel that it had failed or that it had any serious responsibility for what happened afterward to the eliminated boys and girls.

Unquestionably many youth who dropped out of school were not fitted by nature or by inclination for the curriculum that was offered, but doubtless some, though by no means the majority, were the very kind that could have profited most from secondary or higher education. They had the natural abilities and capacities to succeed, but they simply were not convinced that what the schools had to offer was worth their time and effort. Gradually school administrators became disturbed by the elimination, especially at the end of the elementary grades; and a great deal was written one or two generations ago about means to prevent the loss of so many youth. Unfortunately, as one reads this educational literature he does not find that the concern was ordinarily discriminating; the American ideal that everybody should go to school and should continue in school was only beginning to develop. On the one

hand, then, many youth who could doubtless profit from secondary education were being lost from the schools, and the schools only tardily and indiscriminately became concerned with the fact.

On the other hand, an increasing number persisted long beyond the point where they manifested any beneficent results either to themselves or to society from the education that was presented to them. This persistence increased as there developed the fetish that secondary education is respectable, and that everyone who aspired to improve his position in the world should have it. This attitude grew out of the earlier belief in the perfectability of man and was strengthened by the lesser need for youth in industry. Had it not been for the latter change, we should hardly have seen the enactment of laws generally raising, sometimes well into the high-school level, the age of compulsory education. Changes in these laws were quite as much the result of industrial conditions as of democratic principles. The tendency to increased persistence was fostered by the rulings of certain state departments of education that boys and girls could not be ejected from the public schools for any amount of failure in courses, whether caused by natural inability or by unwillingness to work.

Gradually but steadily there has developed in our country a feeling of responsibility on the part of the public schools for the welfare of each and every individual, regardless of his native endowments or of his previous successes. This feeling has resulted in differentiated curricula, simplified or enriched courses of study, personal guidance programs, attempts at vocational placements, and in rare instances follow-ups to continue aid after formal separation from the school. All of these admirable means to promote individual welfare have, however, been limited to far too few schools and in consequence have advantaged far too few youth.

More recently there has been growing, largely in the professional but also in the lay minds a recognition that concern with the welfare of the individual is ultimately justified because of the necessity of making education supported by the public pay dividends in terms of individuals made better able and better disposed to contribute to the betterment of society. This conception has been considered at length in the discussion earlier of Issue III.

At the present time our secondary schools are not failing to the same extent as formerly to enroll and to retain youth up to graduation, but the number of boys and girls who do not continue education of any kind beyond the period of compulsion is disturbing to anyone concerned with education as contributing both to personal and to societal welfare. A part of the improvement is caused doubtless by the increase in number and the improvement in quality of our secondary schools; but a no inconsiderable part is the result of other conditions for which the schools can take no credit. Unfortunately there is little or no trustworthy evidence as to the changes in the levels of intelligence and of promise that have resulted from the increased persistence. Many think that there has been a fairly constant increase in the number of youth all along the line, from dull to bright; while others maintain that the increase has come chiefly from those of poor intellects that formerly either did not enter high schools or that left early. Whatever the source of the millions of youth now enrolled, it is undeniable that they are intellectually a group more heterogeneous than secondary schools anywhere else at any other time have been accustomed to provide for, that under present conditions many are not notably profiting from the curricula offered them, and that we have no generally approved policy to guide any schoolman who recognizes the problem.

The evidence of failure in schools and of schools is abundant and so well known that it need not be reproduced here. It conclusively shows that a disturbingly large percentage of the students enrolled in our high schools are not mastering the subjects that they are required to take. It is true that the percentage of failing marks has been generally reduced in response to criticism; but many believe that this apparent improvement is spurious, explained by lowered standards and imperfect evaluation of achievements. The evidence also shows a proportion too small to be comforting of youth who are not so convinced of the value of the subjects in which they have "passed" that they elect advanced courses in them. And most disturbing is the paucity of evidence that after school compulsions cease any respectable proportion of people make application of what they have learned or have attempted to learn in many secondary-school courses. The curricula in our high schools are good only in so far as mastery of them influences individuals to continuous and progressively better living.

It may be safely concluded that the curricula developed through generations of trial are reasonably good for a certain part of the youth population and that for the remaining part they range from less value to none. If so, the conclusion is inevitable that, first, as large a proportion of the first group as possible should be attracted into the high schools and held there as long as they manifest satisfactory growth; and, second, that the second group should variously be provided for and retained only so long as the high school is the best place in which they should be. This matter has been discussed under several of the Issues, notably the first, second, third, and fourth.

The trend of sentiment and of practice is entirely toward a condition that emphasizes the need of general understanding of what the function of the secondary school in this matter should be. As will be pointed out presently, changed conditions make it even more imperative than previously that there should be agreement on theory in order that practice may gradually become wiser and more effective.

II. Changed Conditions

The increased persistence of pupils in our secondary schools has been caused, as before stated, partly by the spread of the democratic ideal that every child shall have an equal chance for self development, and partly by changes in the economic and industrial conditions of the country. Increasing wealth, more widely distributed here than in other nations, has made it possible both for the state to provide educational opportunities and for families to keep their children in schools. This possibility has been made more or less a necessity by the decrease of vocational opportunities for youth. The compulsory education laws have been passed, as has been noted, quite as much to keep children and youth from labor competition with adults as to satisfy humanitarian and democratic ideals. Astute leaders, recognizing that because of inventions and ingenious economies the number of jobs is steadily decreasing, have realized that the opportunities of adults would be increased if youth were kept in schools, which are provided for the most part by taxes on wealth.

The result of these and other changes, which it is unnecessary to enumerate here, is that an ever-increasing number of

youth—over 7,000,000, it is estimated in 1935—are enrolled in our secondary schools. This is not only a larger number, but also a far larger per cent, than any other nation has ever enrolled or has ever wished to enroll. So large a number means that the group as a whole, and also that each group in a high school of even moderate size, is a very fair representative of the population of the country. It is heterogeneous in a sense that is greatly embarrassing to conscientious educators who recognize the unsuitableness of the traditional curricula for many of these youth who are claiming their "right to an equal opportunity" for development. Not being suited to probably a majority of youth, the traditional curricula cannot be expected to result in an education that is profitable to the supporting society.

Anyone familiar with modern secondary schools recognizes that the heterogeneity is of various kinds. There are boys and girls who range from very dull to genius; some are dull in abstract thinking but clever in mechanical performances or in social leadership; some are tone-deaf or color-blind, while others are gifted in creation or in production of beautiful music or pictorial art. Although "correlation (of talents) and not compensation is the rule," there are numerous and embarrassing exceptions, youth who could do well in some activities failing through lack of ability or of application in others that they are required by school prescriptions or by social mores to attempt. The problem is further complicated by youth who are socially immature but intellectually accelerant and by others who are socially mature but academically retarded.

Unfortunately the differentiation of the curriculum, of methods of teaching, and of social control has not kept pace with the increasing heterogeneity of pupils. Educators generally recognize that there should be such differentiation as will provide for the varied abilities, capacities, interests, and needs; but for two main reasons they have not provided it. In the first place, they have had no certainty as to what innovations are proper; and in the second place the public not being fully aware of the need has neither welcomed changes nor been willing to provide the funds that would be required. Enthusiastic recognition and approval are given to the efforts that many schools, small as well as large, have made to solve this problem.

III. Conflicting Theories

In the discussion of Issues I and II there have been presented the arguments for and against the wisdom of attempting to provide secondary education for all youth and of permitting boys and girls to remain in schools as long as they wish to do so regardless of actual or probable achievement. The conclusions and the recommendations there made have received the unanimous approval of this Committee, and it is hoped that they will be accepted by the country at large.

It is one thing, however, to present an ideal toward which secondary schools should work, and it is quite a different thing to face the problem under conditions as they actually are with the responsibility for establishing and carrying out an immediate policy. Thorndike has called attention to the fact¹ that "what evidence we have indicates that the ablest (students in our high schools) receive very little more (education) than the least able." He maintains that "there should be equal zeal to distribute . . . education so that those will have most who can use it best," and he adds: "The passion of equalization which had a certain nobility when a large percentage of children barely learned to read and write becomes unwise, almost ridiculous, when the question is one of spending our resources to keep in school boys of sixteen, or seventeen, or eighteen who would be happier and more useful at work or at play. Our increased resources should be used to aid young men and women whom nature and nurture have chosen to profit from schooling."

The Committee on the Orientation of Secondary Education approves as an ideal that some form of suitable education should be furnished for all normal youth² until society is ready to provide employment or until higher institutions accept them for further study. Until that ideal is approximated, the special function of secondary schools in regard to this problem is approved as proposed at the head of this discussion.

¹E. L. Thorndike: "The Distribution of Education." *School Review*, 40:335, (May, 1932).

²The terms used here have been defined in the Introduction to the Issues.

IV. Meaning of the Function

The position taken in formulating a statement of this function is based on an appreciation of the principle discussed under Issue III, that the public supports its schools as a wise investment to make youth better able and better disposed to contribute to the perpetuation and to the improvement of society. It has previously been argued in the discussion of Issue III that the interests of society cannot be promoted unless each individual is bettered, but public funds can honestly be spent on the education of an individual only as it promises better than any other kind to contribute to the betterment of society. Moreover, they cannot be honestly spent on the education of any individual if by being devoted to others a greater benefit to society can be provided. In making a decision on this latter phase all the results of possible educations or of the lack, both positive and negative, must be considered. Acceptance of a position involving the expenditure of public funds for education should be accompanied by an understanding of this responsibility and by a courageous determination to see that they are spent for the maximum advantage of the supporting public.

It is obvious that the school cannot educate an individual for advantage to society unless he is retained in classes. Therefore the first part of the function emphasizes the necessity of retaining each and every normal pupil as long as it is advantageous to him and to society to do so. The changes in the percentage of persistence previously cited make this task far easier than it was up to a half generation ago. Approximately seventy per cent of the available age group are now enrolled in secondary schools; in some communities the percentage runs to well over ninety. This gratifying tribute to the ideals of democracy should not blind us, however, to the fact that the obligation to increase the proportion of youth persisting in schools is far from satisfied. Approximately three out of ten prospective citizens are not now being prepared by any formal education to return as much as they might to the welfare of the society in which they live, and in large numbers of communities the proportion is of course much higher. A manufacturer would be greatly disturbed if three-tenths or even one-tenth of the raw materials out of which his wealth is to come were not in process as long as it seems profitable to work

it. The first emphasis, then, is on the responsibility of educators to retain all youth in school and to provide for each and every one a curriculum promising the largest returns to him and to society.

At present, however, such provisions for a considerable number of youth cannot be made. Even the most optimistic educator realizes that under existing conditions there sooner or later comes a time when what is offered by way of education or what can be offered with the staff, equipment, and parental demands based on tradition, will obviously result in returns that do not, and cannot be made to, justify the further expenditure of public-school funds or the effort that is demanded of certain individuals. Exactly when the returns diminish to a point that they no longer justify a continuance of either expense or effort no one can of course say with certainty. There is no agreement as to exactly when daylight ceases and night begins.³ But there inevitably does come a time when anyone competent enough to administer a public school can have no doubt. When that time comes honesty demands action. The school has an obligation to see that public school money is not wasted, and it likewise has an obligation to prevent the wasteful effort, the failure, and the consequent discouragement of such pupils.

Lest there be any misunderstanding, it is reiterated that the secondary school should seek to retain all normal youth and to provide for each one an education that promises to insure maximum profit both to the individual and to the society that makes the education possible. After efforts are made to provide such an education, efforts that have not been as sincere and as ingenious in many cases as they should have been, there will come a time when the returns do not justify the expenditure of public funds or the encouragement of efforts by certain pupils at futile tasks. It is granted that those responsible for the secondary schools should, as they as a rule will, err on the side of charitable estimation of results. But there will come a time when charity must yield to the certainty of sound judgment based on carefully obtained facts.

There are three main groups of pupils about whom such a judgment must be made. The first group is of those who be-

³See Issue II, pp. 80-96, of the report of this committee on the Issues of Secondary Education.

cause of natural gifts or lack of them have profited to their capacity from what can be offered in the schools. In all probability most of them can profit further by types of education or of training other than those that can be provided by the institution in which they are enrolled. It may be a tragedy to these individuals and it may prove to be a serious loss to society that such an education as would profit them cannot be offered. But the school in which they are enrolled has its limitations imposed by the public, and it must work within those limitations to do an honest job, referring the responsibility to the public, which may then be stirred to make further and suitable provisions for the youth concerned and for its own safety and success. Sympathy for students who do the best that they can and yet fail to profit materially from what can be offered should not blind an educator to the honest duty of passing such students on to other institutions or back to the public.

The second group is of students who do not materially profit from what can be offered because they are not willing to put forth the effort necessary to do so. Partly because of education that they have had, both in school and outside, they have other interests which they consider more important than the pabulum and activities offered by formal education. Some of these interests will probably in time be incorporated in the new curriculum; others are relatively of such slight importance or are actually judged to be so actually harmful that they cannot be used by the school as a part of the educational program. Small sympathy, probably less than they should have when the causes of their attitudes are considered, is likely to go out to such youth. But they are a responsibility of society, and therefore of the schools, none the less. As a matter of fact, they are a grave responsibility and a potent source of danger. Those who cannot learn are more likely to be negative assets to society; those who will not learn, are probable active and positive liabilities. Without the proper kind of education they may, unless adjusted by some other agency, planned or accidental, demand later from society great expense for their adjustment or incarceration. If they cannot be made willing to put forth the serious and continuous effort necessary to profit by what the school can offer, there is no reason why they should be retained. Without materially profiting themselves, they prevent others who are competent and willing to

work from profiting to the extent of their abilities. Like those whose capacities are filled, these youth should be sent to other more suitable institutions, if they exist, or to appropriate work, if it can be found, or they should in honesty be passed back to society with a recommendation of what it should do for them.

Some objectors, both professional and lay, will not admit that continuance in school of such pupils as do not succeed with the curriculum is bad. They argue that there is profit to them from participation in the social life of the school as well as from the protection that is afforded. Such profit there probably is both to individual youth and ultimately to society. But it is costly and accompanied by much unnecessary waste. If social development from wholesome contacts with the well behaved is the paramount good to be sought, its attainment should be provided for more efficiently and more economically by provisions aiming specifically at that objective and not hindered by academic tasks useless to or unattainable by the youth to be developed.

The third group of youth about which a retention judgment should be made is composed of those who have exhausted the possibilities for education that can reasonably be provided by the school. These youth do not constitute a liability problem, but if they remain in a school long after they have attained the profits that it has to offer, they assuredly are retarded in their efforts to become the best men and women possible. Fortunately this problem is neither so common nor so menacing as the ones previously discussed; but it does exist. One or more states still require for graduation the completion of the twelfth grade in the normal number of years, regardless of a pupil's acceleration or of what he has learned outside the school by his own efforts or by the chances of fortune. Many colleges still require four full years of secondary-school work for admission. The group is composed mostly of capable and industrious youth who have great attainments without the schools being aware of them or concerned with the problems that are created. When a student is ready for more independent study in a higher institution, ready socially and physically as well as in intellectual maturity, he should be pushed out of the secondary school with an eye to his profit as well as to the opportunity that his room will make for others who have more to achieve. It is admitted that no youth is likely entirely to

exhaust the possibilities of profit from any school; but there comes a time when his advance will be more probable and more rapid where the opportunities are greater. This group is composed mostly of youth whose attainments have not been adequately recognized and measured by the school.

For these major groups the school should take action promptly as soon as its judgment regarding the diminishing returns is certain. It is but natural that educators should be hesitant to do what is unpleasant and what may cause opposition from affected parents. But the obligation of a trustee of public funds and of one vested with the responsibility of returning dividends in youth made maximally better to contribute to social welfare and progress can be unquestioned. If this function is widely approved by the profession and popularized with the public, courage may be given to those who are in charge of our secondary schools. When judgment is clear that certain pupils cannot or will not materially profit from what can be offered by the school, prompt and kindly action is imperative. It is neither kindly nor honest to delay.

But elimination, the bare objection, of such pupils, however wise it may be for them, the youth who remain, or for the public, is not sufficient. Neither is it efficient or humane. Preceding the elimination should be the wisest and the most skilful guidance possible⁴ so that each eliminated youth and his parents may know all that can be learned as to where he should go, of the opportunities that he will find, and of the general means that he should use to gain most from new experience. Vocational guidance is just now more than ordinarily handicapped by the scarcity of work for which youth may be considered competent or promising. But remedying this unfortunate condition is not the responsibility of the secondary school. If any youth is judged to have reached the point beyond which he assuredly cannot or will not profit by what the school can offer, elimination preceded by guidance is clearly indicated as the proper procedure. When the school has done its duty, further responsibility rests upon society. When a sufficient number of such youths are returned to society, it will be forced to accept the responsibility and to make some provision for them. At present the schools are too likely to conceal

⁴See the discussion of Function VII.

the problem without doing anything sufficient to force the public to solve it.

Guidance in education is also needed. It cannot be seriously contended that in the majority of cases colleges are wisely chosen by youth or by their parents. Proximity, sentiment, or cost usually are more potent in determining selection than are considerations of the suitability of the offerings for the maximum growth of the youth concerned. In all probability a majority of the youth now enrolled in our colleges should never have entered the particular ones that accepted them. Even if this statement is only part true, secondary schools have a responsibility not merely to furnish students and their parents reliable information about the characteristics of the several possible high institutions, but also to break down unreasonable bases for selection and to turn their attention to the factors that should receive chief consideration. More than discouraging some youth from an unwise ambition to enter higher institutions for which they are fit neither by native abilities nor by the acquisition of habits of work, and aiding others to choose wisely the institution most likely to suit their needs, the secondary school should assume a responsibility for encouraging those youth with especial talents, especially when they are for one reason or another likely to leave school, to continue their formal education in the best possible institution that can be discovered. Occasionally stimulus to relatively ineffective students to transfer to another school is justified by the possibility that in a different environment a new start can be made with prospects of better achievements.

V. Limitations and Dangers

The limitations of schools' planning to take such action regarding differentiated curricula as is recommended in the stated function will vary greatly. The smaller the school, other things being nearly equal, the smaller the possibility of its differentiating its offerings so as to more nearly satisfy all needs. Some schools, small as well as large, have far more homogeneous groups of students than others. The more heterogeneous, the more urgent the responsibility and the greater the difficulties, of course. But the most severe limitations are caused by uncertainty as to what new provisions should be made for what are incorrectly called atypical students and by the fear that

recommended action will stir up trouble. It is ardently hoped that some adequately financed and staffed central agency will work out and propose better and more varied curricula and courses of study than may reasonably be expected from any individual educator or school, each of which usually has a normal load of responsibilities that hinders or effectively prevents much creativeness. But until such aid is furnished, each school and each teacher can in all probability improve present practices by adopting the ideal and by using every available means, borrowed or original, to approximate it. We already know with reasonable certainty much more than we apply. A consistent exercise of courage in attempting to make the changes that we think ought to be made—assuring that the curriculum be suited to the majority, for instance—would promisingly forward the new program.

The chief difficulty in seeking to achieve the stated function may be in devising suitable curricula. The chief dangers, however, will lie in the elimination of certain pupils whose parents wish them to remain in school. There has developed so great a social approval of high-school attendance that many a parent ambitious to do the best possible for his children keeps them in school even though there is little or no evidence that they are interested in or materially profiting from the curriculum that is offered. The parent feels, no doubt correctly, that the children are better off in the atmosphere and under the protection of the high school than they would be on the streets or in any other available place. This feeling is especially strong when there is no regular work that can be procured for them. Consequently parents protest and protest strongly if the school eliminates their children, whatever justification it may have or whatever advice it may give as to what they should attempt to do with profit to themselves and to society.

No one can fail to have sympathy with such protests, especially if the children have done their best and yet are unable to succeed in the curricula that can be offered. Such sympathy is likely to be dominant over judgment when the administrator realizes that society has not really provided any suitable institution for the education or protection of such youth. As stated earlier, however, when it is clearly manifest that a pupil cannot or will not materially profit by further study of what can be offered, he should be eliminated promptly

and furnished with such advice as it is possible to give as to where he can go with most probable profit to himself and to society. The provision of an institution, educational, vocational, or protective, suitable for him is the responsibility of society, and that responsibility is more easily procrastinated when the schools do not thrust it in the face of the public by refusing longer to pretend to do what they honestly know they are not doing and cannot do.

It is high time that the educational profession be perfectly frank and honest in this matter. The elimination of boys and girls who cannot or who will not materially profit from what can be offered in the secondary schools will undoubtedly raise a rumpus, and it ought to do so. The rumpus ought to be so violent as to alarm the public and to result, when all of the facts are known, in the voting of adequate funds to make possible either sufficiently liberalized curricula to provide for all but the most abnormal youth or else provisions of other kinds better to care for those who do not profit from the secondary-school offerings. Correspondence study is one possibility. Another is the voting of funds to pay for the transportation and even for the board and lodging of such pupils in communities where there are suitable schools. A beginning has already been made in the common practice of paying tuition in a neighboring school when a community does not maintain a public high school. Necessity and ingenuity will doubtless suggest other solutions.

The problem is also made difficult, as has previously been noted, by the scarcity of vocational opportunities at the present time. Under the conditions that prevail in our civilization the prophecy may be ventured that vocational opportunities for youth are more likely to decrease than to increase. This is deplorable when all the evidence goes to show that some youths will certainly profit more from steady labor than from continuance in a school that does not or cannot provide for their needs. But again the responsibility is that of society, and there is probably no better means of bringing the public to a realization of the need of providing for the non-scholastic youth than a refusal to keep them longer than is demonstrably profitable in the school. A solution of the problem may be found in the establishing of new types of schools or of other institu-

tions, or it may be found in a revolution. That is for the public to decide.

It is the sober judgment of this Committee that our present practice of palliating conditions, of concealing them from the public by keeping in schools youth who are not materially profiting from what can be offered, results in much harm. When every possible expansion of the curriculum has been made and they still fail to profit, it is difficult to see how either the individuals or society can be benefited. These students either suffer the ignominy of failure or they are made to feel what is not true, that they have successfully done what they have attempted. Even lowering standards and putting such students on slow schedules does not in the great majority of cases solve the problem, for traditional subject matter is not what they need or what will most benefit them. While attempting that, they use time that they could far better spend on what is more assuredly useful. Their futile efforts might be justified if there were any faith left in the value of a discipline that results only from attempting, even without any degree of respectable success, what is difficult and distasteful. And certainly there can be no reasonable expectation of valuable transfer when nothing is acquired to be transferred. Retention of such youth in such schools is bad also because of the effects on the education of students who by natural and acquired gifts could succeed far better than they do now unhindered by those without promise. Teachers conscientiously feel that they should spend a disproportionately large amount of time on the weak and lazy, and as a consequence the pace of the whole class is slowed down, with often resulting bad habits developed by the competent.

VI. Means of Accomplishment

The first means is, of course, the professional agreement that this function as stated should be approved and sought in practice. If it receives widespread professional endorsement, educators will have direction as to what they ought to do. They should then make the principle known to the Board of Education and to the public at large, seeking in every legitimate way to get understanding and general approval; and when that is secured, they should use it courageously and consistently as a guide to their actions. A principal will find

it much easier to do what he conceives to be his duty if the function is generally accepted and if it is known that the whole profession is attempting to achieve it in all the high schools of the country. Moreover, when the public at large has accepted it, a principal will have a sound defense against any protesting parent. The road will not be easy; but it is the duty of educators to throw the responsibility for unsatisfactory provisions for youth back where it belongs, on the general public.

A thorough public understanding that education is a social investment and not a benevolence, is likely to support a school that is honestly attempting to make that investment pay dividends. If the public decides to provide the necessary funds to enlarge the curriculum, well and good; then the responsibility will be ours to devise various curricula that promise benefit to all. If it is unwilling or unable to do that, it must face the issue and decide what it will do to provide suitable education, protection, or employment for those who are eliminated. The public is likely to move slowly, of course; but nothing will so expedite action as keeping the problem continually to the fore by the elimination of pupils who are manifestly not profiting from the curricula offerings.

The problem of readmission will inevitably arise. After a youth has been adjudged by cumulative evidence as not having succeeded, the burden of proof is his if he desires another chance, for the school must otherwise admit that its own deliberate judgment was wrong or it must look forward to further waste of public funds. Doubtless some mistakes of judgment will be made; but it is assumed that exclusion will be decided on only when the cumulative evidence after probation and extra help is overwhelming. The probability is that then the judgment will be correct. Boys and girls of ability who have not used their opportunities as well as they might and are in consequence excluded, should clearly be required to prove their right to readmission. Proof should as a rule be in the form of achievement by independent study under a tutor. A mere promise that has previously been given and not kept, should not be sufficient.

It should not be overlooked that in all this discussion there has been an assumption of the best possible continuous effort on the part of the school to learn all the pertinent facts about

each student—his home environment, his habits, his interests, his attitudes, his ambitions, and his special aptitudes as well as his native intelligence. Along with this continuous study, the results of which should be recorded on a cumulative permanent record card, there should be advice and skilled guidance, personal, educational, and vocational. The assumption of the responsibility for such study and guidance of each individual adds greatly to the load of the school; and if the job is well done, it will add immeasurably to its effectiveness. It cannot be well done if the counselor is characterized only by sympathy and good intentions. To these must be added wide knowledge and tactful skill.

VII. Advantages

The advantages resulting from attempts to make a school achieve this function have already been mentioned or suggested in the discussion. For convenience they are here briefly enumerated in summary.

a. Both teachers and the public will better understand what the responsibilities of the school are and where they end.

b. The expenditure of public funds will be more honest and more efficient.

c. Students will have a feeling of greater responsibility to earn the right to continue their education.

d. Those who are eliminated will cease to waste public money and their own efforts in attempting to accomplish what is impossible or relatively useless.

e. They will be directed to other types of study or to work in which they are likely to be successful.

f. They will escape the cumulating stigma of failure or the impression that ineffective work is satisfactory.

g. The students who remain will have a better chance to progress more rapidly and more thoroughly in a curriculum for which they have manifested a right.

h. The public will take education more seriously than it generally does at the present time and will gradually recognize the need of providing varied types of education suitable to all youth, protection, or opportunities for work that will be either educative or leading to vocational efficiency or both.

That this function as stated is an ideal toward which secondary schools should move rather than one that can be fully accomplished immediately is recognized. Tradition is too strong among both the profession and the public to assume otherwise. Schoolmen will be timorous to act contrary to the wasteful and often dishonest tradition, which is determined chiefly by sympathy for youth, by an imperfect understanding of why a democratic society supports schools, and by fear of reprisals by offended parents; and the public will be slow to understand and to accept the underlying principles even when they are presented clearly and repeatedly. But ideals are precisely what we need in secondary education, ideals that emanate from fundamental principles of society as well as of education. If the profession approves this function as an ideal, it will have something constantly to work toward. If it works toward the ideal consistently, recognizing that necessary compromises are actual deviations from what is believed to be right and determining to return to it just as rapidly as it can convince the public, progress will be made and the way opened for far greater effectiveness in secondary education than has yet been known in our country.

THOMAS H. BRIGGS.

PRELIMINARY PROGRAM

New Orleans, Louisiana

February 18, 19, 20, and 21, 1937

Headquarters of Department, Jung Hotel

Meetings February 18, 19, and 20 will be held in the
Jung Hotel.

Thursday, February 18

10 A. M.

Meeting of the Committee on Planning.

1 P. M.

Meeting of the Executive Committee

Friday, February 19

9:30 A. M.

Roof Garden

Report of the Committee on Planning

Chairman, Francis L. Bacon, Principal of Township High
School, Evanston, Illinois

The American Youth Commission

Dr. Homer P. Rainey, Director of the American Youth
Commission, Washington, D. C.

Report of Progress of the Committee on Coöperative Study
of Secondary-School Standards

Joseph Roemer, Director of Demonstration School of Peabody
College for Teachers, Nashville, Tennessee

The Preparation and In-Service Training of High-School
Teachers

Charles H. Judd, Head of the Department of Education,
University of Chicago.

Friday, February 19

1:00-1:30 P. M.

The School of the Air
(Speaker to be announced)

Movie Appreciation
(Speaker to be announced)

National Safety Council
(Speaker to be announced)

3:15 P. M.

Tours to Vieux Carre

Friday, February 19

8:30 P. M.

Address

Honorable Cordell Hull, Secretary of State
(Invited, not confirmed)

7:45 A. M.—Breakfast in the French Quarter at La Louisiane,
725 Rue Iberville, Vieux Carre

Breakfast Guests: Orville C. Pratt, President of National
Education Association; A. L. Threlkeld, President of De-
partment of Superintendence

9:30 A. M.—Business session

10 A. M.—Conferences:

Division I, Panel: Improvement of Instruction, Dr. H. L. Cas-
well, George Peabody College

Division II, Panel: School and Community Relationship, Dr.
George C. Galphin, Drexel Institute, Philadelphia

Division III, Panel: National Honor Society, Superintendent
M. R. McDaniel, President, National Honor Society

Saturday, February 20

1:00-3:00 P. M.

Presentation of the Final Report of the Committee on Orientation of Secondary Education—The Functions of Secondary Education

Professor Thomas H. Briggs, Chairman of the Committee

Saturday, February 20

3:15 P. M.

Tours of Vieux Carre

Saturday, February 20

6:00 P. M.

Dinner in honor of Professor Thomas H. Briggs

Saturday, February 20

Address

National Commander Harry Colmery, American Legion

Sunday, February 21

10:30 A. M.

Bishop G. Bromley Oxnam

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